



LICENSE NUMBER 729641

October 10, 2005

Mr. Arman Toumari

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

RE: **G&M Oil Company Station #51**
2155 South Atlantic Boulevard
Commerce, California
Transmittal of Site Conceptual Model Update

Dear Mr. Toumari:

On behalf of the property owner/operator, Atlas Environmental Engineering, Inc. (ATLAS) presents this update to the Site Conceptual Model (SCM) for the subject site (**Figures 1 and 2**). This SCM update has been prepared with the aid of the non-steady state spreadsheet analytical model developed by Messrs. Tom Shih and Yue Rong of the Los Angeles Regional Water Quality Control Board (LARWQCB). The model is intended to delineate the surface and subsurface conditions at the site and near vicinity, define the constituents of concern and their existing as well as projected distribution, and identify any existing and/or potential receptors. In addition, the model can be utilized to identify other possible environmental concerns that need to be addressed. This SCM was prompted by the LARWQCB letter of February 10, 2004. The following sections present a brief description of the site characteristics, model assumptions, input data, model results and a discussion. Please note that much of the descriptive and historic site information has been presented in the “*Preliminary Site Conception Model*” (PSCM) and it has not been included in this update.

WELLS AND CONDUITS

Based on data provided by the Los Angeles County Hydrogeologic Unit, there are seven (7) active wells within a one-mile radius of the site. The well data is summarized in **Table 1**.

Well 2839C (No. 02S12W08P01S) is the nearest well and is located approximately 1,600-feet from the site. There are no known oil wells on the subject site.

Based on the depth to groundwater the existing utilities at the site should not act as a potential conduit for transport of contaminants.

There are presently no known active or potentially active faults in the current Alquist-Priolo designated areas. However, the site is within an area designated as a potential liquefaction hazard zone.

GROUNDWATER FLOW DIRECTION AND GRADIENT

On July 5, 2005, depth to groundwater beneath the site ranged from approximately 87- to 89-feet below the top of the well casings. Light non-aqueous phase liquid (LNAPL) has been effectively reduced at the site and has not been present at the site since the 4th quarter 2004 sampling event. The groundwater depth data collected was used to determine the groundwater flow direction and gradient across the site. Based on the data collected by ATLAS, the flow direction across the site is southerly at a gradient between approximately 0.002 and 0.004. A groundwater elevation contour map is presented on **Figure 3**. Groundwater monitoring data is presented in **Table 2**. Status reports, field data, and sampling procedures are included in **Appendix A**.

GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from all wells on July 5, 2005 and submitted to Southland Technical Services, Inc. for analysis. The groundwater samples were analyzed for TPHg and TPHd by EPA Method 8015M and for BTEX plus fuel oxygenates by EPA Method 8260B. Concentrations of TPHg ranged from <50 µg/L to 6,710 µg/L; BTEX ranged from <1 µg/L to 1,600 µg/L; MTBE ranged from <2.0 µg/L to 751 µg/L; and TBA concentrations ranged from <10 µg/L to 237 µg/L. TPHd, ETBE, DIPE and TAME were not detected at concentrations exceeding the laboratory detection limits. A summary of groundwater analytical and water quality data is presented in **Table 2**. Field Data and Project Status Reports are included in **Appendix A**. Complete laboratory reports are presented in **Appendix B**.

ESTIMATION OF RELEASE MASS

Currently, there are no records available indicating the mass of the release. One documented unauthorized release was initially discovered during failed tank testing conducted by other consultants and verified during a preliminary site investigation performed by ATLAS in 1997. The investigation was limited to the area of the diesel tank pits in the southwest corner

of the property. The release was reported by G&M Oil Company. In 1999, during underground storage tank (UST) removal activities, significant levels of TPHg and TPHd were detected from beneath the USTs located in the north corner of the property. **Figures 4 through 13** present the isoconcentration plots for TPHg, benzene, toluene, ethylbenzene, total xylenes, MTBE, DIPE, ETBE, TAME and TBA using the most current groundwater monitoring data. MTBE concentrations versus time have also been plotted for groundwater monitoring wells MW-3 and MW-12, which are presented as **Figures 14 and 15**.

SOURCE REMOVAL/REMEDIATION ACTIVITES

During May 1999, the former USTs were removed and replaced with double walled storage tanks. During tank removal/replacement activities, approximately 357 tons of petroleum hydrocarbon affected soil was removed from the site.

From September 28, 2004 to September 30, 2004, ATLAS conducted soil vapor extraction (SVE) and aquifer characterization pilot tests. The pilot tests were conducted to determine the optimum soil vapor and groundwater extraction rates to maintain adequate control over the site. The highest vapor concentrations were noted in VW-2S (screened from 20- to 40-feet bgs) with concentrations of TPHg at 54,800 ppmv, BTEX at 2,010 ppmv, MTBE at 545 ppmv, ETBE at <21.50 ppmv, DIPE at 44.9 ppmv, TAME at <21.50 ppmv and TBA at <151.5 ppmv. The highest concentration in the deeper screened wells was observed in VW-1D (screened from 50- to 80-feet bgs) with concentrations of TPHg at 26,400 ppmv, BTEX at 523 ppmv, MTBE at 91.2 ppmv, ETBE at <10.75 ppmv, DIPE at 19.1 ppmv, TAME at <10.75 ppmv and TBA at <75.75 ppmv. Detailed results are included in the ATLAS report titled, "*Site Conceptual Model Update and Report of Feasibility Study*", dated October 15, 2004. Using the average soil vapor concentration based on the laboratory data, the initial hydrocarbon-loading rate is expected to be 534 lbs/day.

ANALYTICAL MODEL DATA INPUT/ASSUMPTIONS

Messrs. Tom Shih and Yue Rong, with LARWQCB, developed the model utilized for the conditions at the subject site. The non-steady state analytical model is used to predict the plume travel time required to reach a down-gradient receptor, usually an on-line domestic supply well. Of importance in this study is the additive MTBE. The model is based on a finite mass advection-dispersion partial-differential equation for contaminant transport processes in groundwater. For the model to provide adequate results several assumptions were made, they are:

- ❖ Non-steady state (concentration is a function of time),
- ❖ Initial mass discharged is finite and instantaneously introduced as a slug,
- ❖ Homogenous aquifer properties,

- ❖ No change in groundwater flow direction and velocity,
- ❖ The dispersion coefficients are constant and proportional to the velocity (dynamic dispersion regime), and
- ❖ Contaminant natural degradation is not considered (e.g., no sorption or biodegradation).

SENSITIVITY ANALYSIS

Following the selection of initial input parameters, the model is calibrated by adjusting the data within reasonable ranges to model predictions. Three (3) parameters that significantly effect the output are the longitudinal dispersivity, groundwater velocity and mass of discharge per unit depth. Therefore, several model runs are completed with these values changed to adjust the model predictions to the measured field data. The input data presented below is a result of the model sensitivity adjustments.

SITE SPECIFIC INPUT DATA

The site-specific data is included in **Appendix C**. The two (2) wells utilized for the model predictions were MW-3 and MW-12. The site is depicted on **Figure 1** in relation to the domestic well (sensitive receptor). Based on the data input, the concentration profiles were completed for the two wells which established MTBE concentration profile for the drinking water well (sensitive receptor). **Figure 14** presents a graph of “*Field Data and Model Predicated Time vs. MTBE Concentration Profile for Down-Gradient MW-3*”. **Figure 15** presents a graph of “*Field Data and Model Predicated Time vs. MTBE Concentration Profile for Down-Gradient MW-12*”. **Figure 16** presents “*Model Predicted Time vs. MTBE Concentration Profile for Drinking Water Well*”.

RESULTS/DISCUSSION

Based on the input data and model output results, the plume has the potential to reach the sensitive receptor within 28,000 days with a MTBE concentration of less than 5 µg/L. Therefore, the likelihood of the existing release (plume) to impact the domestic well at significant contaminant concentrations is remote. Continued quarterly updates of the model predictions will be provided, as needed, using the groundwater monitoring data.

ATLAS proposed the installation of a dual phase extraction remediation system in the report titled “*Site Conceptual Model Update and Final Remedial Action Plan*”, dated January 15, 2005. Currently, ATLAS is in the process of designing the system and piping layouts for the subject site. Once approval is received from the LARWQCB, ATLAS will submit design plans to the City of Commerce.

CLOSING

The work conducted by ATLAS has been performed using generally accepted methods and procedures in the environmental field. ATLAS makes no other warranty, either expressed or implied, concerning the information that is contained within this report. The analysis of the samples were conducted by a California Certified Laboratory, however, no warranty as to the validity of the work conducted by the independent laboratory is implied.

Due to the changing subsurface environment, continuing assessments and/or excavation projects may reveal findings that are different than those which are presented herein. This facet of the environmental profession should be considered when basing professional opinions on limited data collected from the projects performed.

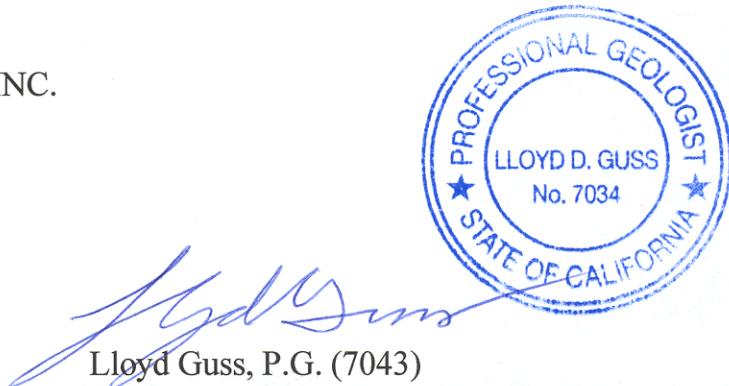
This report is valid as of this date. As a result of the passage of time and changing site conditions or integrity of the USTs, piping, dispensing equipment and monitoring wells, deviations to the information contained in this report may occur. Accordingly, information presented in later reports may invalidate this report in partial or whole form. These conditions are beyond the control of ATLAS, and should be considered in basing continuing assessments on the information contained herein after the passage of time.

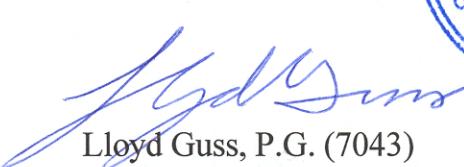
This report has been prepared by ATLAS for G&M Oil Company. Submission of this report to the appropriate regulatory agencies/parties is recommended and considered the responsibility of G&M Oil Company.

Respectfully submitted,
ATLAS ENVIRONMENTAL ENGINEERING, INC.



Karen Blanchard
Project Geologist




Lloyd Guss, P.G. (7043)
Senior Geologist/Project Manager

cc: Ms. Jennifer L. Talbert, G&M Oil Company, Inc. (w/2 enclosures)

TABLES

TABLE 1
REGIONAL PRODUCTION WELL DATA
G&M OIL COMPANY, INC., SERVICE STATION #51
COMMERCE, CALIFORNIA

Well Number (LA County)	Well Number (State)	Date	DTW (ft.)	Surface Elev. (ft.)	Water Elev. (ft.)	MTBE
2828C	2S12W07G01	10/10/2000	87.0	168.8	81.8	N/A
2838	2S12W08C01	10/10/1999	131.5	163.3	31.8	N/A
2838A	2S12W07H01	10/10/2000	142.0	174.2	32.2	N/A
2838B	2S12W08F01	10/10/2000	133.0	161.6	28.6	N/A
2839A	2S12W17D02	10/10/2000	108.0	144.7	36.7	N/A
2839B	2S12W17D02	10/10/2000	114.0	146.1	32.1	N/A
2839C	2S12W08P01	10/10/2000	108.0	148.4	40.4	N/A
2859	2S12W09M01	10/10/2000	108.0	160.0	52.0	N/A
2859A	2S12W09M02	10/10/2000	110.0	160.4	50.4	N/A

Note: Gauging data from Los Angeles County Public Works, Hydrologic Div. and analytical data from California Water Quality Monitoring Database.

N/A - Not Available

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, µg/L)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-1	5/28/2002	148.21	86.14	0.00	62.07	621	<500	118	28.3	4.7	58.3	--	129	<2	<2	<2	34.7
MW-1	8/27/2002	148.21	86.23	0.00	61.98	433	<500	31.0	2.1	<1	5.8	--	113	<2	<2	<2	53.2
MW-1	11/6/2002	148.21	86.61	0.00	61.60	3670	<500	224	9.3	3.4	18.0	--	806	<4	<4	<4	42.0
MW-1	2/7/2003	148.21	86.73	0.00	61.48	2780	<500	144	23.0	5.0	43.0	--	1640	<4	<4	<4	135
MW-1	5/5/2003	148.21	86.91	0.00	61.30	1670	<500	66.8	27.6	8.8	39.4	--	1220	<4	<4	<4	29.1
MW-1	7/22/2003	148.21	86.99	0.00	61.22	6950	<500	515	123	<50	176	--	5930	<100	<100	<100	<500
MW-1	10/22/2003	148.21	87.23	0.00	60.98	3830	<500	195	26.0	15.0	40.5	--	2160	<10	<10	<10	<50
MW-1	1/26/2004	148.21	87.55	0.00	60.66	2460	<500	112	40.0	<20	90.0	--	1300	<40	<40	<40	<200
MW-1 *	5/12/2004	148.21	87.64	0.00	60.57	1810	<500	122	47.3	13.1	41.9	--	1080	<2	<2	<2	<10
MW-1	8/16/2004	148.21	87.82	0.00	60.39	5070	<500	494	80.6	40.8	123	--	3690	<20	<20	<20	<100
MW-1	10/22/2004	148.21	88.14	0.00	60.07	4670	<500	94.7	6.2	<5	<10	--	587	<10	<10	<10	<50
MW-1	2/4/2005	148.21	88.29	0.00	59.92	4150	<500	221	416	<10	450	--	1680	<20	<20	<20	<100
MW-1	4/4/2005	148.21	88.40	0.00	59.81	273	<500	2.3	1.0	<1	2.4	--	149	<2	<2	<2	<10
MW-1	7/5/2005	148.21	88.43	0.00	59.78	106	<500	<1	<1	<1	<2	--	44.0	<2	<2	<2	<10

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 1 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
µg/L	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, $\mu\text{g/L}$)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-1		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-2	5/28/2002	148.07	85.93	0.00	62.14	614	<500	28.7	17.1	8.0	115	--	20.2	<2	<2	<2	<10
MW-2	8/27/2002	148.07	85.99	0.00	62.08	111	<500	14.2	1.4	1.3	8.5	--	3.0	<2	<2	<2	<10
MW-2	11/6/2002	148.07	86.42	0.00	61.65	57.0	<500	9.0	1.8	1.1	3.9	--	3.0	<2	<2	<2	<10
MW-2	2/7/2003	148.07	86.52	0.00	61.55	101	<500	1.0	6.3	7.3	24.4	--	5.3	<2	<2	<2	<10
MW-2	5/5/2003	148.07	86.69	0.00	61.38	146	<500	11.2	9.1	5.4	22.3	--	7.5	<2	<2	<2	<10
MW-2	7/22/2003	148.07	86.81	0.00	61.26	233	<500	15.6	18.7	6.0	30.2	--	11.6	<2	<2	<2	<10
MW-2	10/22/2003	148.07	87.04	0.00	61.03	73.0	<500	5.7	2.7	2.6	8.5	--	<2	<2	<2	<2	<10
MW-2	1/26/2004	148.07	87.42	0.00	60.65	52.0	<500	5.9	2.9	2.1	9.9	--	<2	<2	<2	<2	<10
MW-2 *	5/12/2004	148.07	87.46	0.00	60.61	93.0	<500	9.0	5.1	3.0	12.7	--	2.3	<2	<2	<2	21.6
MW-2	8/16/2004	148.07	87.65	0.00	60.42	183	<500	<1	<1	<1	<2	--	2.4	<2	<2	<2	<10
MW-2	10/22/2004	148.07	88.00	0.00	60.07	<50	<500	5.3	2.9	<1	6.4	--	<2	<2	<2	<2	<10
MW-2	2/4/2005	148.07	88.14	0.00	59.93	123	<500	2.1	17.3	<1	28.9	--	<2	<2	<2	<2	<10
MW-2	4/4/2005	148.07	88.29	0.00	59.78	283	<500	4.0	30.2	7.6	58.7	--	4.2	<2	<2	<2	<10

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 2 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, $\mu\text{g/L}$)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-2	7/5/2005	148.07	88.30	0.00	59.77	<50	<500	<1	<1	<1	<2	--	<2	<2	<2	<2	<10
MW-2		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	5/28/2002	147.89	86.04	0.00	61.85	6370	<500	809	362	75.0	670	--	619	<100	<100	<100	<500
MW-3	8/27/2002	147.89	86.15	0.00	61.74	8210	<500	690	295	65.0	270	--	385	<50	<50	<50	<250
MW-3	11/6/2002	147.89	86.55	0.00	61.34	2890	<500	687	253	47.1	143	--	357	<10	<10	<10	<50
MW-3	2/7/2003	147.89	86.67	0.00	61.22	2570	<500	597	199	23.0	121	--	590	<10	<10	<10	<50
MW-3	5/5/2003	147.89	86.85	0.00	61.04	2740	<500	635	163	29.3	116	--	798	<10	<10	<10	<50
MW-3	7/22/2003	147.89	86.94	0.00	60.95	2780	<500	864	192	67.6	171	--	2130	<20	<20	<20	231
MW-3	10/22/2003	147.89	87.12	0.00	60.77	2630	<500	540	183	63.5	141	--	610	<10	<10	<10	<50
MW-3	1/26/2004	147.89	87.46	0.00	60.43	3640	<500	410	221	77.0	259	--	333	<10	<10	<10	<50
MW-3 *	5/12/2004	147.89	87.54	0.00	60.35	4070	<500	831	76.3	138	162	--	732	<4	<4	<4	238
MW-3	8/16/2004	147.89	87.72	0.00	60.17	4270	<500	1190	34.5	193	139	--	830	<10	<10	<10	286
MW-3	10/22/2004	147.89	87.96	0.00	59.93	6660	<500	1410	798	238	995	--	708	<10	<10	<10	214
MW-3	2/4/2005	147.89	88.10	0.00	59.79	199	<500	28.7	26.0	1.9	28.6	--	70.7	<2	<2	<2	162

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 3 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, µg/L)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-3	4/4/2005	147.89	88.32	0.00	59.57	10600	<500	1970	773	293	1240	--	1560	<20	<20	<20	658
MW-3	7/5/2005	147.89	88.26	0.00	59.63	6710	<500	1600	557	270	1130	--	751	<20	<20	<20	237
MW-3		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	5/28/2002	148.58	86.71	0.03	61.89	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/27/2002	148.58	86.81	FILM	61.77	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/6/2002	148.58	87.17	0.00	61.41	2950	<500	314	243	47.5	121	--	149	<10	<10	<10	53.5
MW-4	2/7/2003	148.58	87.31	0.00	61.27	1720	<500	337	166	31.0	112	--	282	<5	<5	<5	<25
MW-4	5/5/2003	148.58	87.48	0.00	61.10	720	<500	210	55.0	22.8	63.0	--	219	<10	<10	<10	<50
MW-4	7/22/2003	148.58	87.57	0.00	61.01	1370	<500	280	143	22.4	88.1	--	288	<10	<10	<10	<50
MW-4	10/22/2003	148.58	87.78	0.00	60.80	700	<500	161	24.6	13.3	43.4	--	174	<5	<5	<5	<25
MW-4	1/26/2004	148.58	88.13	0.00	60.45	1350	<500	174	92.6	17.0	67.5	--	129	<4	<4	<4	<20
MW-4 *	5/12/2004	148.58	88.18	0.00	60.40	10600	<500	4630	897	469	561	--	3490	<40	<40	<40	<200
MW-4	8/16/2004	148.58	88.36	0.00	60.22	12200	<500	4770	1490	226	749	--	3430	<20	<20	<20	172
MW-4	10/22/2004	148.58	88.63	0.00	59.95	2100	<500	617	110	27.4	79.3	--	527	<20	<20	<20	<100

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 4 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
µg/L	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, µg/L)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-4	2/4/2005	148.58	88.79	0.00	59.79	13700	<500	3060	4370	196	1650	--	2400	<20	<20	<20	<100
MW-4	4/4/2005	148.58	88.97	0.00	59.61	1100	<500	154	63.3	11.5	72.4	--	431**	<4	<4	<4	<20
MW-4	7/5/2005	148.58	88.98	0.00	59.60	1060	<500	104	77.5	21.0	106	--	285	<4	<4	<4	221
MW-4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	5/28/2002	147.45	85.60	0.00	61.85	7280	<500	1100	312	56.3	1550	--	497	<10	<10	<10	<50
MW-5	8/27/2002	147.45	85.72	0.00	61.73	348	<500	48.0	8.5	<5	135	--	104	<10	<10	<10	<50
MW-5	11/6/2002	147.45	86.12	0.00	61.33	483	<500	47.6	15.6	5.7	22.1	--	123	<2	<2	<2	<10
MW-5	2/7/2003	147.45	86.25	0.00	61.20	428	<500	51.6	17.3	<1	31.8	--	169	<2	<2	<2	<10
MW-5	5/5/2003	147.45	86.44	0.00	61.01	871	<500	71.8	22.8	8.8	45.3	--	328	<2	<2	<2	<10
MW-5	7/22/2003	147.45	86.50	0.00	60.95	884	<500	92.6	37.6	8.1	42.3	--	556	<2	<2	<2	47.2
MW-5	10/22/2003	147.45	86.73	0.00	60.72	225	<500	26.8	12.1	8.4	23.8	--	159	<2	<2	<2	<10
MW-5	1/26/2004	147.45	87.10	0.00	60.35	135	<500	17.7	15.0	9.7	35.1	--	17.7	<2	<2	<2	<10
MW-5 *	5/12/2004	147.45	87.16	0.00	60.29	515	<500	30.5	3.6	<1	17.6	--	245	<2	2.3	<2	<10
MW-5	8/16/2004	147.45	87.30	0.00	60.15	991	<500	220	27.0	3.7	50.2	--	496	<2	<2	<2	18.0

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 5 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
µg/L	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, µg/L)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-5	10/22/2004	147.45	87.63	0.00	59.82	97.5	<500	1.9	<1	<1	4.8	--	37.8	<2	<2	<2	<10
MW-5	2/4/2005	147.45	87.68	0.00	59.77	136	<500	28.8	35.8	<1	26.4	--	17.4	<2	<2	<2	<10
MW-5	4/4/2005	147.45	87.98	0.00	59.47	398	<500	69.4	33.7	6.9	32.2	--	108	<2	<2	<2	<10
MW-5	7/5/2005	147.45	88.00	0.00	59.45	113	<500	<1	1.5	1.1	5.2	--	27.7	<2	<2	<2	<10
MW-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-6	5/28/2002	148.14	86.31	0.23	62.00	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/27/2002	148.14	86.15	0.01	62.00	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	11/6/2002	148.14	87.04	0.60	61.55	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	2/7/2003	148.14	87.19	0.57	61.38	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	5/5/2003	148.14	86.83	0.02	61.33	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	7/22/2003	148.14	87.48	0.57	61.09	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/22/2003	148.14	87.74	0.63	60.88	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	1/26/2004	148.14	87.91	0.51	60.62	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6 *	5/12/2004	148.14	88.04	0.55	60.52	LPH	--	--	--	--	--	--	--	--	--	--	--

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 6 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
µg/L	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA

G&M OIL CO. STATION #51

COMMERCE, CA

(Concentration, $\mu\text{g/L}$)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-6	8/16/2004	148.14	88.15	0.41	60.30	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/22/2004	148.14	88.17	0.00	59.97	8150	<500	159	118	58.3	720	--	107	<2	<2	<2	24.3
MW-6	2/4/2005	148.14	88.28	0.00	59.86	245	<500	8.7	23.5	2.2	35.5	--	50.7	<2	<2	<2	30.0
MW-6	4/4/2005	148.14	88.42	0.00	59.72	3970	<500	39.5	162	57.2	358	--	77.1	<2	<2	<2	<10
MW-6	7/5/2005	148.14	88.46	0.00	59.68	3080	<500	9.5	75.4	47.4	249	--	54.2	<5	<5	<5	<25
MW-6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-7	5/12/2004	NA	87.03	0.00	NA	160	<500	28.5	2.2	1.6	13.4	--	73.3	<2	<2	<2	<10
MW-7	8/16/2004	147.72	87.26	0.00	60.46	54.4	<500	<1	<1	<1	<2	--	23.7	<2	<2	<2	<10
MW-7	10/22/2004	147.72	87.48	0.00	60.24	<50	<500	<1	<1	<1	<2	--	3.2	<2	<2	<2	<10
MW-7	2/4/2005	147.72	87.74	0.00	59.98	<50	<500	<1	<1	<1	<2	--	6.6	<2	<2	<2	<10
MW-7	4/4/2005	147.72	87.88	0.00	59.84	376	<500	92.4	<1	<1	<2	--	168	<2	<2	<2	<10
MW-7	7/5/2005	147.72	87.87	0.00	59.85	<50	<500	<1	<1	<1	<2	--	10.5	<2	<2	<2	<10
MW-7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-8	5/12/2004	NA	87.18	0.00	NA	2750	<500	975	140	<10	740	--	853	<20	<20	<20	<100

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 7 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, $\mu\text{g/L}$)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-8	8/16/2004	147.76	87.43	0.00	60.33	405	<500	85.4	<2.5	<2.5	24.0	--	75.2	<5	<5	<5	<25
MW-8	10/22/2004	147.76	87.79	0.00	59.97	<50	<500	<1	<1	<1	<2	--	4.0	<2	<2	<2	<10
MW-8	2/4/2005	147.76	88.91	0.00	58.85	72.0	<500	<1	8.5	<1	13.7	--	4.0	<2	<2	<2	<10
MW-8	4/4/2005	147.76	88.10	0.00	59.66	58.5	<500	30.6	<1	<1	<2	--	4.8	<2	<2	<2	<10
MW-8	7/5/2005	147.76	88.12	0.00	59.64	193	<500	<1	5.9	3.9	22.5	--	<2	<2	<2	<2	<10
MW-8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-9	5/12/2004	NA	87.19	0.00	NA	278	<500	114	5.7	<1	50.6	--	4.6	<2	<2	<2	<10
MW-9	8/16/2004	147.64	87.40	0.00	60.24	50.6	<500	119	<1	<1	<2	--	2.0	<2	<2	<2	<10
MW-9	10/22/2004	147.64	87.75	0.00	59.89	76.6	<500	1.3	1.6	<1	14.3	--	<2	<2	<2	<2	<10
MW-9	2/4/2005	147.64	87.88	0.00	59.76	<50	<500	7.7	6.3	<1	7.3	--	<2	<2	<2	<2	<10
MW-9	4/4/2005	147.64	88.06	0.00	59.58	110	<500	3.1	7.4	2.4	17.3	--	<2	<2	<2	<2	<10
MW-9	7/5/2005	147.64	88.12	0.00	59.52	51.9	<500	<1	<1	<1	<2	--	2.8	<2	<2	<2	<10
MW-9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-10	5/12/2004	NA	87.19	0.00	NA	1060	<500	11.1	<5	<5	12.7	--	1010	<10	<10	<10	<50

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 8 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, $\mu\text{g/L}$)

Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-10	8/16/2004	147.50	87.40	0.00	60.10	974	<500	57.8	1.9	1.2	12.7	--	711	<2	<2	<2	<10
MW-10	10/22/2004	147.50	87.65	0.00	59.85	1900	<500	28.3	<2.5	<2.5	13.6	--	1250	<5	<5	<5	165
MW-10	2/4/2005	147.50	87.89	0.00	59.61	77.9	<500	18.7	4.0	<1	2.9	--	23.5	<2	<2	<2	17.5
MW-10	4/4/2005	147.50	88.02	0.00	59.48	210	<500	1.3	8.2	2.0	16.6	--	75.1	<2	<2	<2	99.3
MW-10	7/5/2005	147.50	88.03	0.00	59.47	502	<500	<1	2.1	1.7	10.7	--	261	<2	<2	<2	193
MW-10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-11	5/12/2004	NA	88.27	0.03	NA	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-11	8/16/2004	148.68	88.47	0.03	60.23	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-11	10/22/2004	148.68	88.71	0.01	59.97	LPH	--	--	--	--	--	--	--	--	--	--	--
MW-11	2/4/2005	148.68	78.80	0.00	69.88	2090	<500	225	317	17.1	201	--	138	<4	<4	<4	41.7
MW-11	4/4/2005	148.68	87.38	0.00	61.30	324	<500	33.4	49.8	7.1	53.0	--	66.4	<4	<4	<4	30.8
MW-11	7/5/2005	148.68	89.02	0.00	59.66	855	<500	282	50.4	10.4	51.6	--	183	<2	<2	<2	11.1
MW-11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-12	5/12/2004	NA	86.60	0.00	NA	188	<500	39.5	6.7	<1	17.1	--	60.9	<2	<2	<2	<10

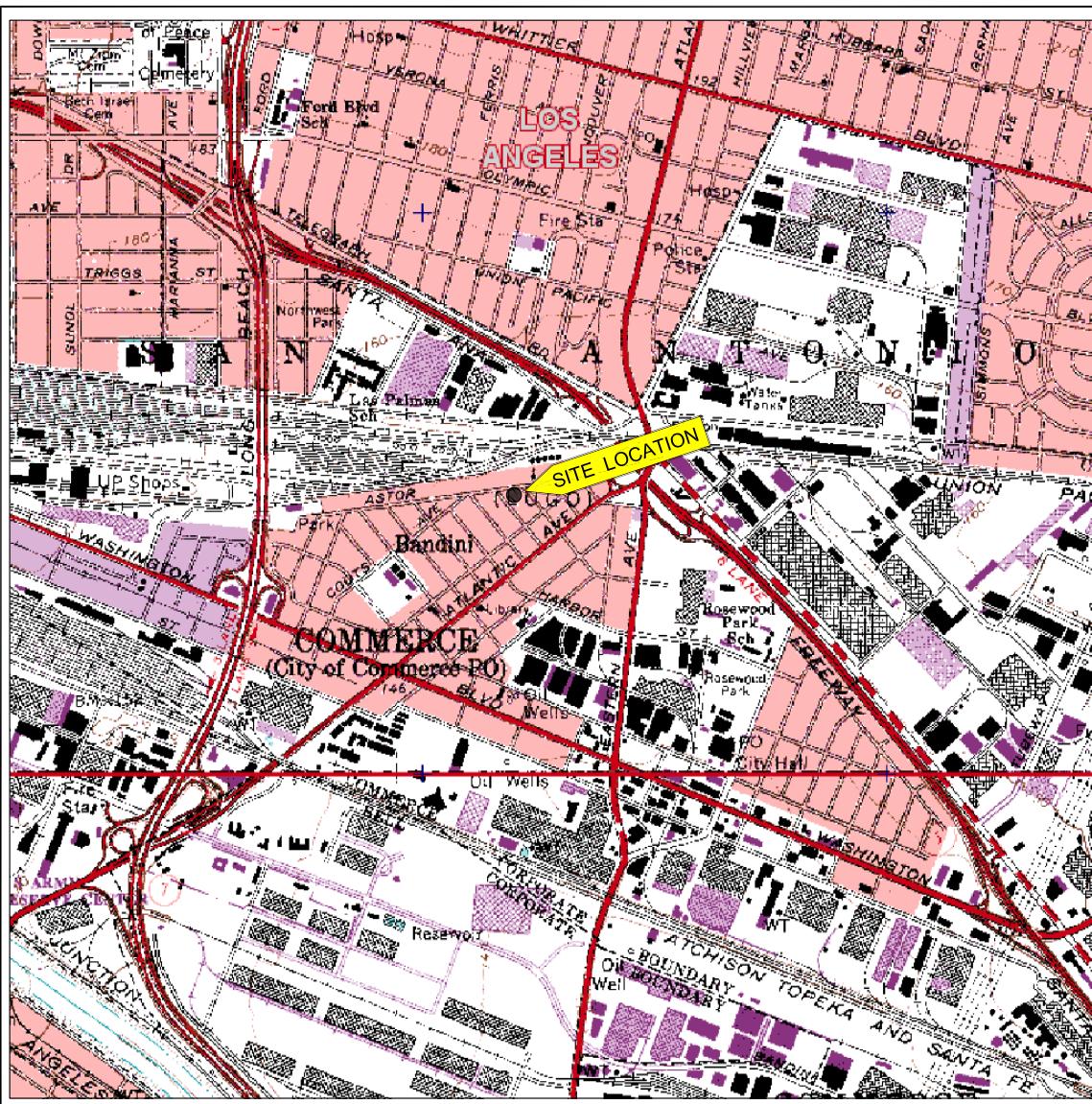
SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	Page 9 of 10
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL DATA
G&M OIL CO. STATION #51
COMMERCE, CA
(Concentration, $\mu\text{g/L}$)

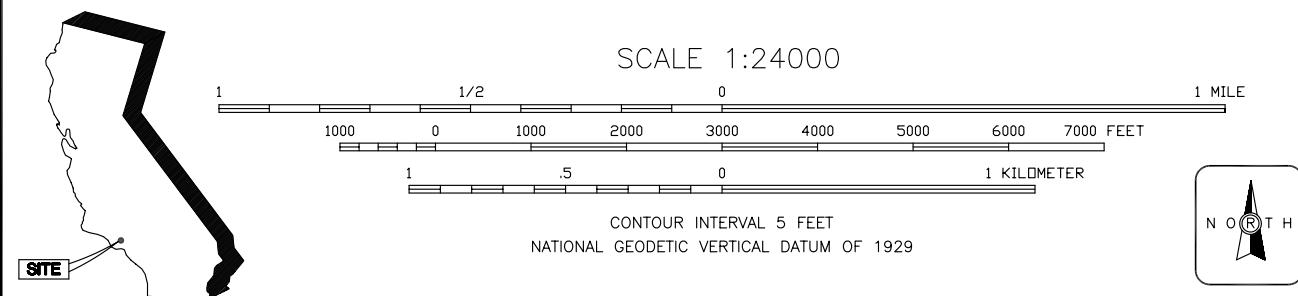
Well	Date	SWE	DTW	PT	E-WATER	TPHg	TPHd	Benzene	Toluene	E-Benzene	Xylenes	MTBE	MTBE (8260)	ETBE	DIPE	TAME	T-Butyl Alcohol
MW-12	8/16/2004	146.77	86.79	0.00	59.98	1040	<500	379	7.0	<1	29.8	--	402	<2	<2	<2	<10
MW-12	10/22/2004	146.77	87.06	0.00	59.71	849	<500	49.6	20.2	6.9	30.8	--	138	<4	<4	<4	<20
MW-12	2/4/2005	146.77	87.16	0.00	59.61	428	<500	143	8.3	<1	13.6	--	125	<2	<2	<2	<10
MW-12	4/4/2005	146.77	87.38	0.00	59.39	1160	<500	12.4	131	26.6	208	--	23.0	<2	<2	<2	<10
MW-12	7/5/2005	146.77	87.37	0.00	59.40	319	<500	35.2	36.0	13.4	63.3	--	16.7	<2	<2	<2	<10
MW-12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

SWE	- Surveyed Well Elevation.	TPHg	- Total Petroleum Hydrocarbons as gasoline, EPA 8015M.	DIPE	- Di-isopropyl ether.	<i>Page 10 of 10</i>
DTW	- Depth To Water.	TPHd	- Total Petroleum Hydrocarbons as diesel, EPA 8015	ETBE	- Ethyl tertiary-butyl ether.	
PT	- Product Thickness (apparent).	MTBE	- Methyl tertiary butyl ether.	TBA	- T-butyl alcohol.	
E-Water	- Groundwater elevation.	<	- Less than laboratory detection limits.	LPH	- Liquid-Phase Hydrocarbons.	
--	- Not analyzed.	NA	- Not Available.	*	- Sampled on Alternate Date	
$\mu\text{g/L}$	- Micrograms per Liter.	TAME	- Tert-amyl methyl ether.	**	- Obtained from a Higher Dilution	

FIGURES



SOURCE: USGS 7.5 minute topo map, Los Angeles Quadrangle 1964,
Photorevised 1994, 3-D TopoQuads, Delorme, 1999



15701 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
PHONE: (714) 890-7129

G&M OIL COMPANY, INC.
SERVICE STATION #51

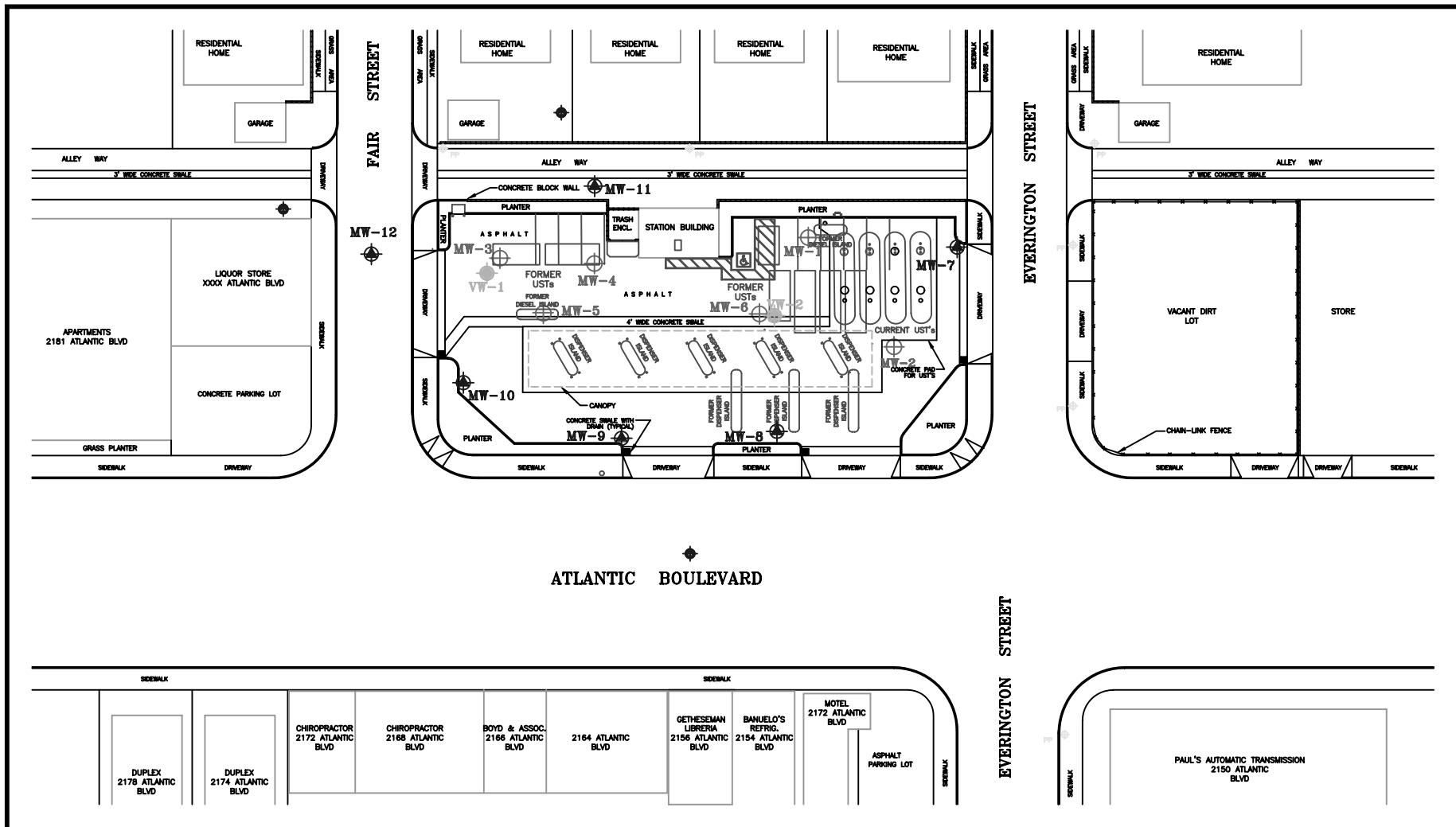
2155 SOUTH ATLANTIC BOULEVARD
COMMERCE, CALIFORNIA

SITE LOCATION
MAP

DRAWING NUMBER:
GM51SLMF1

FIGURE 1

* Environmental Products and Services * Site Assessment and Remediation
* Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management



LEGEND:

VW-2 DUAL-COMPLETION WELL
 MW-6 GROUNDWATER MONITORING WELL

GROUNDWATER MONITORING WELL, MAY 2004
 CONTINGENCY WELL

Design By: Adapted from RFA provided Site Map

ATLAS ENVIRONMENTAL
ENGINEERING, INC.
 15701 CHEMICAL LANE
 HUNTINGTON BEACH, CA 92649
 PHONE: (714) 890-7129

* Environmental Products and Services * Site Assessment and Remediation
 * Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management



Drawn By: S.P.
 Date: 11/11/2002
 Rev.: 11/11/2002

0 SCALE 60'
 (APPROXIMATE DIMENSIONS)

G & M OIL COMPANY SERVICE STATION #51

2155 S. ATLANTIC BOULEVARD
 COMMERCE, CA 90040

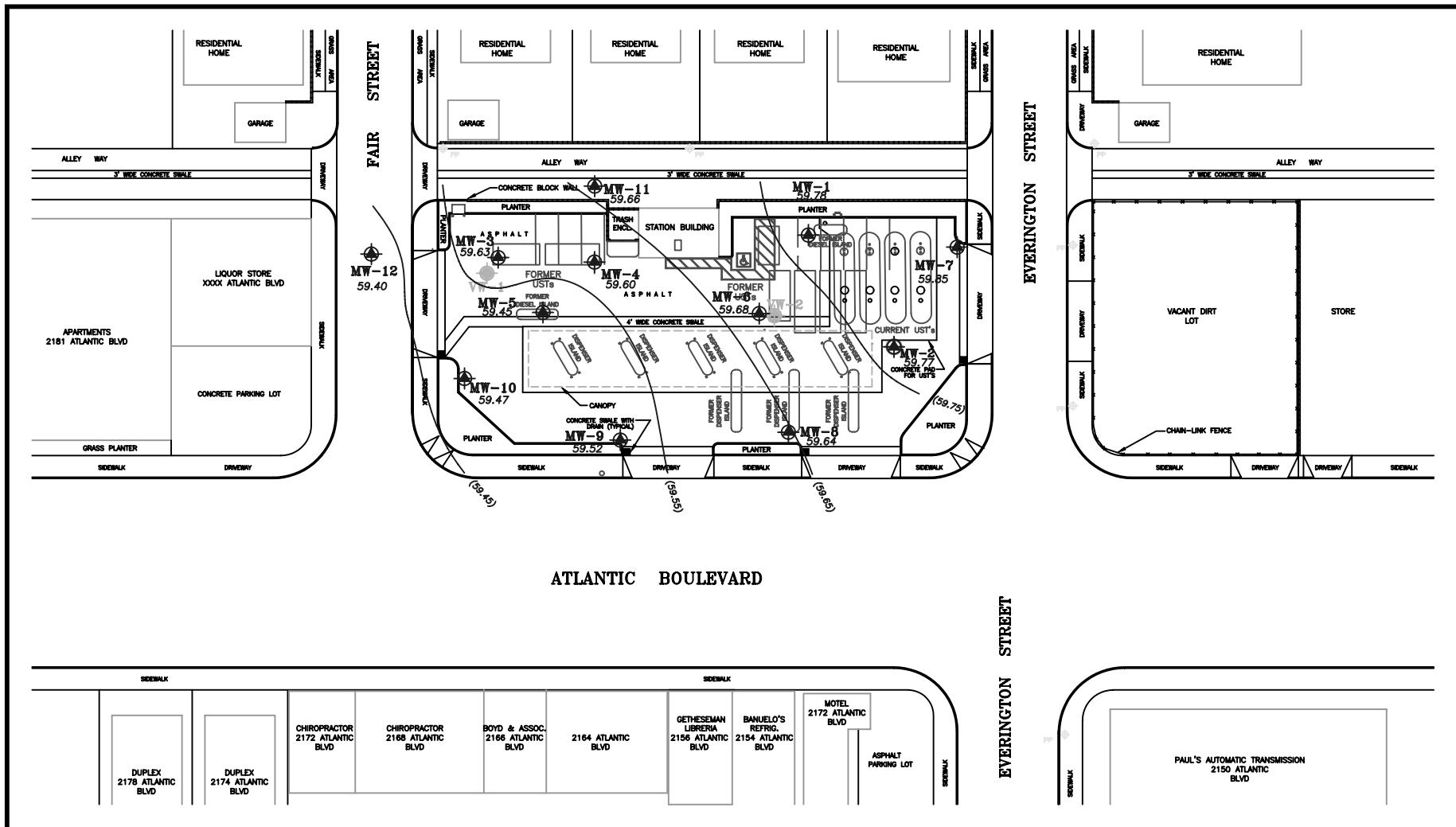
SITE VICINITY WELL LOCATIONS

DRAWING NUMBER:
G51AS12F3

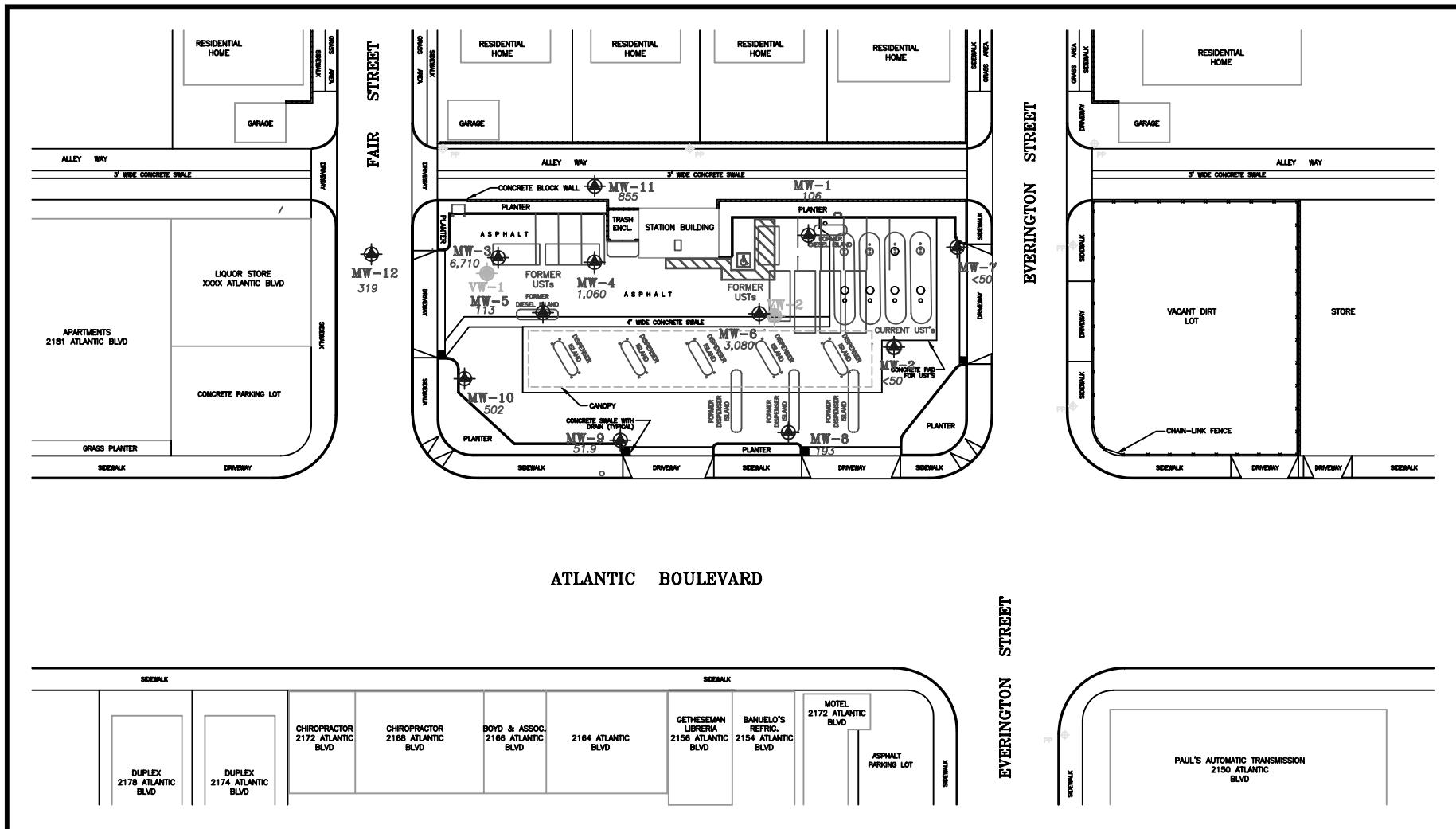
FIGURE 2

1

1

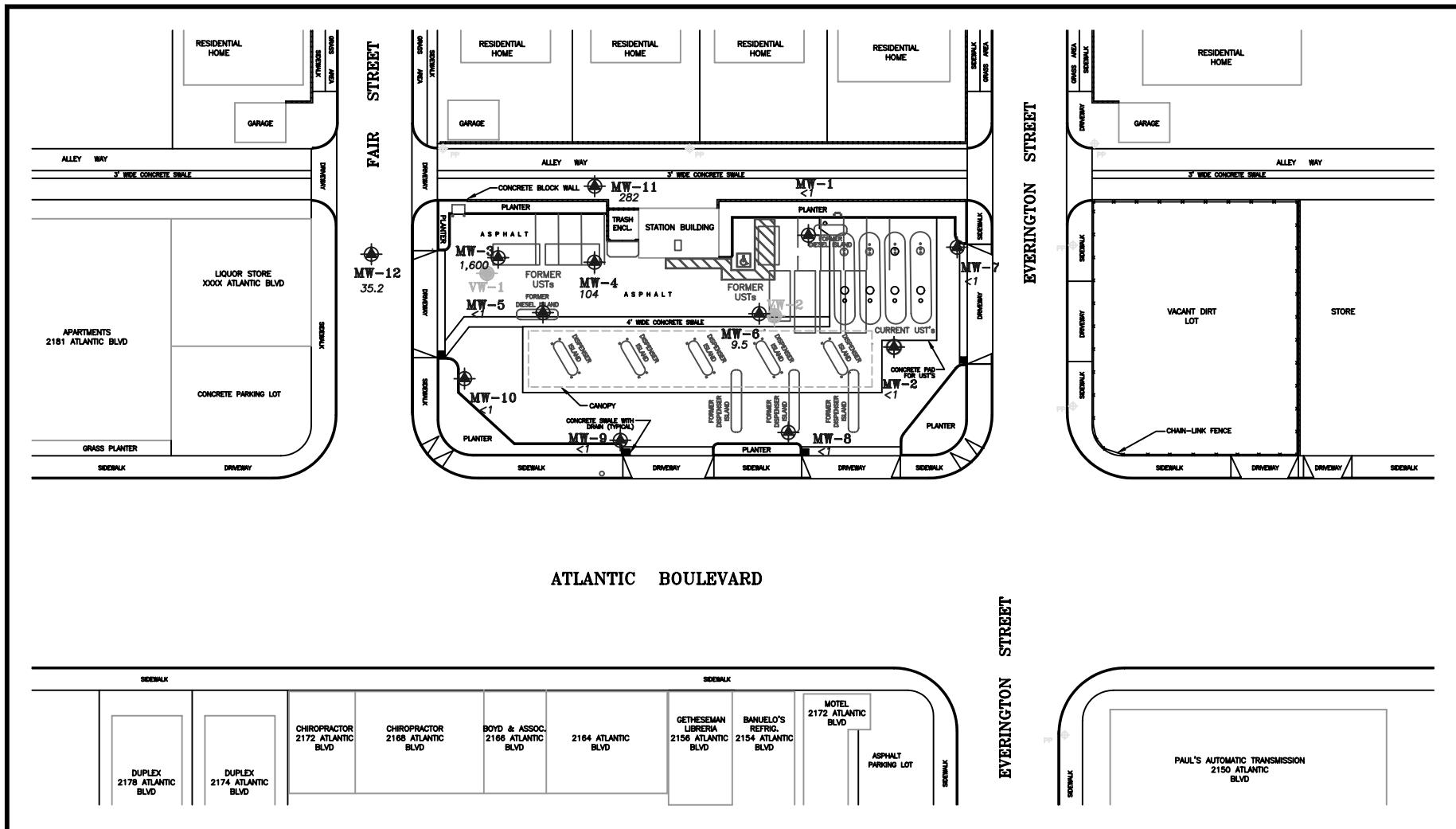


Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINITY GROUNDWATER CONTOUR MAP
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312	1 1 FIGURE 3



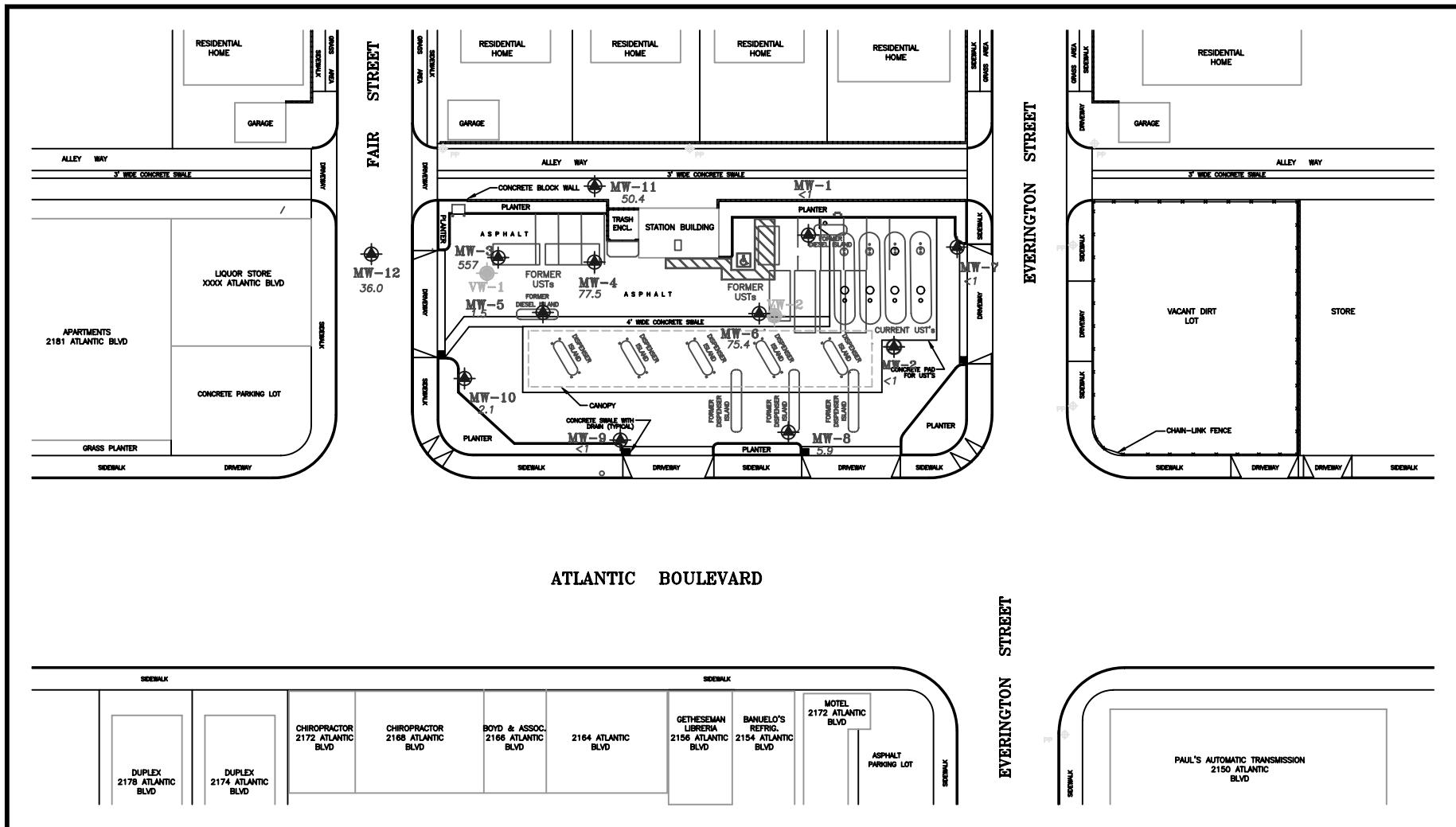
Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY TPHg CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312	1 1 FIGURE 4

* Environmental Products and Services * Site Assessment and Remediation
* Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management



Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY BENZENE CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312	1 1 FIGURE 5

* Environmental Products and Services * Site Assessment and Remediation
 * Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management



LEGEND:

- VW-2 DUAL-COMPLETION WELL
- MW-12 GROUNDWATER MONITORING WELL

<1
557
LESS THAN LAB LIMIT
TOLUENE CONCEN. (ppb), 07/05/2005

LPH CONTOUR

Design By: Adapted from RFA provided Site Map

**ATLAS ENVIRONMENTAL
ENGINEERING, INC.**

15701 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
PHONE: (714) 890-7129



Drawn By: S.P.
Date: 11/11/2002
Rev.: 08/11/2005

0 SCALE 60'
(APPROXIMATE DIMENSIONS)

G & M OIL COMPANY SERVICE STATION #51

2155 S. ATLANTIC BOULEVARD
COMMERCE, CA 90040

SITE VICINTY

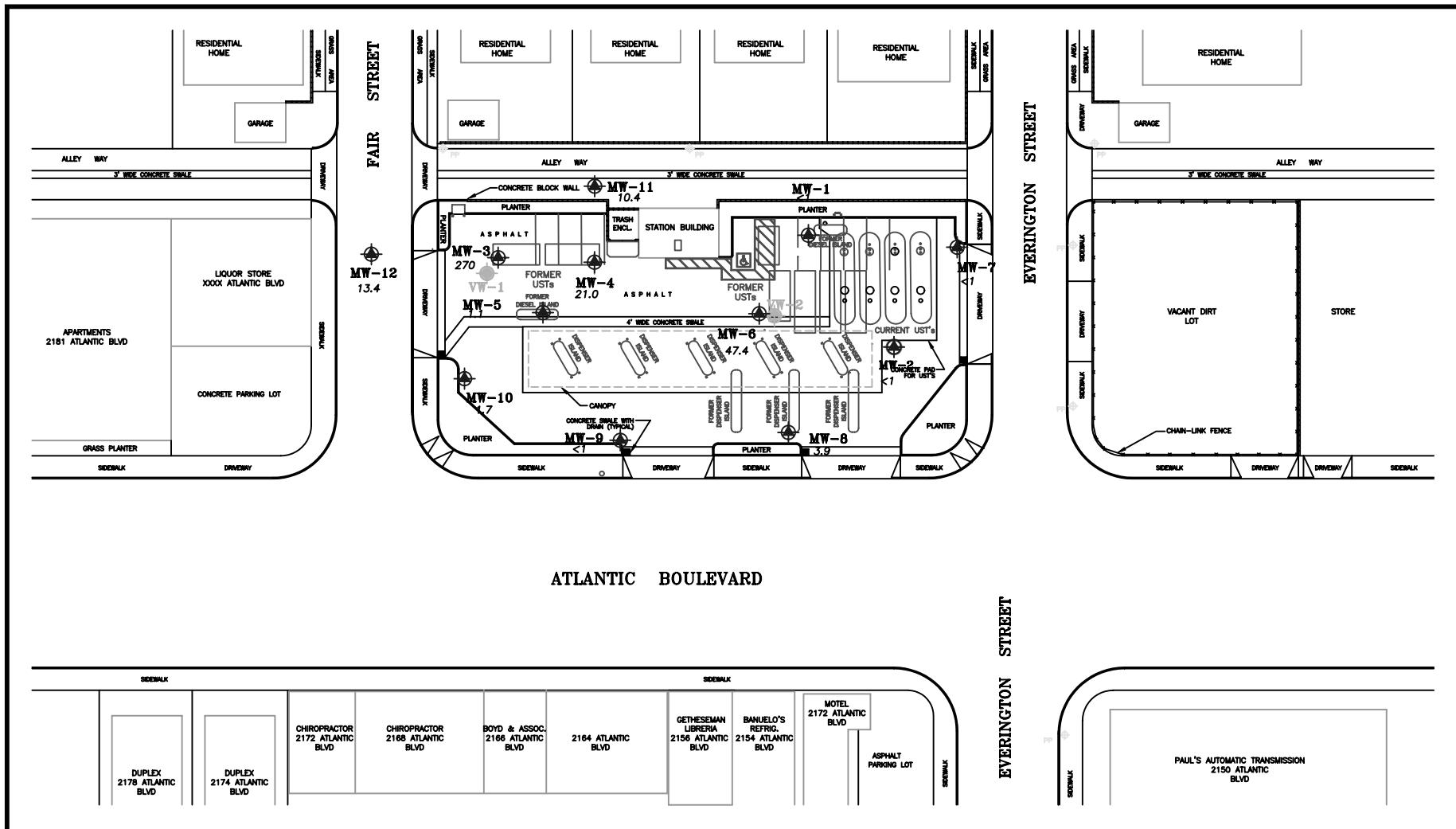
1

TOLUENE CONCENTRATION
IN GROUNDWATER

1

DRAWING NUMBER:
G51SCM5312

FIGURE 6



LEGEND:

VW-2 DUAL-COMPLETION WELL
MW-12 GROUNDWATER MONITORING WELL

<1 LESS THAN LAB LIMIT
270 E-BENZENE CONCEN. (ppb), 07/05/2005

LPH CONTOUR

Design By: Adapted from RFA provided Site Map

ATLAS ENVIRONMENTAL
ENGINEERING, INC.
15701 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
PHONE: (714) 890-7129



Drawn By: S.P.
Date: 11/11/2002
Rev.: 08/11/2005

0 SCALE 60'
(APPROXIMATE DIMENSIONS)

G & M OIL COMPANY SERVICE STATION #51

2155 S. ATLANTIC BOULEVARD
COMMERCE, CA 90040

SITE VICINTY

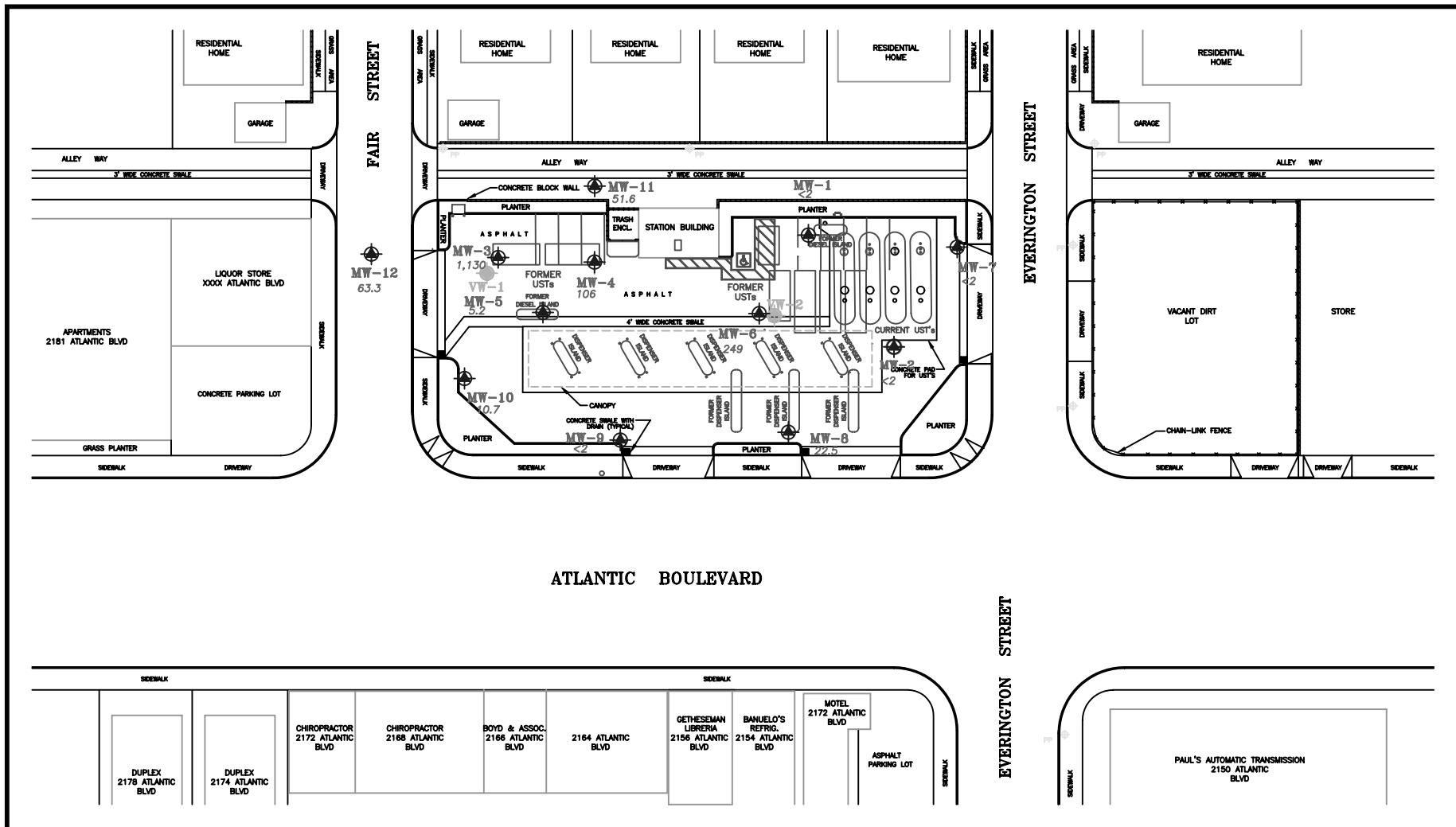
1

E-BENZENE CONCENTRATION
IN GROUNDWATER

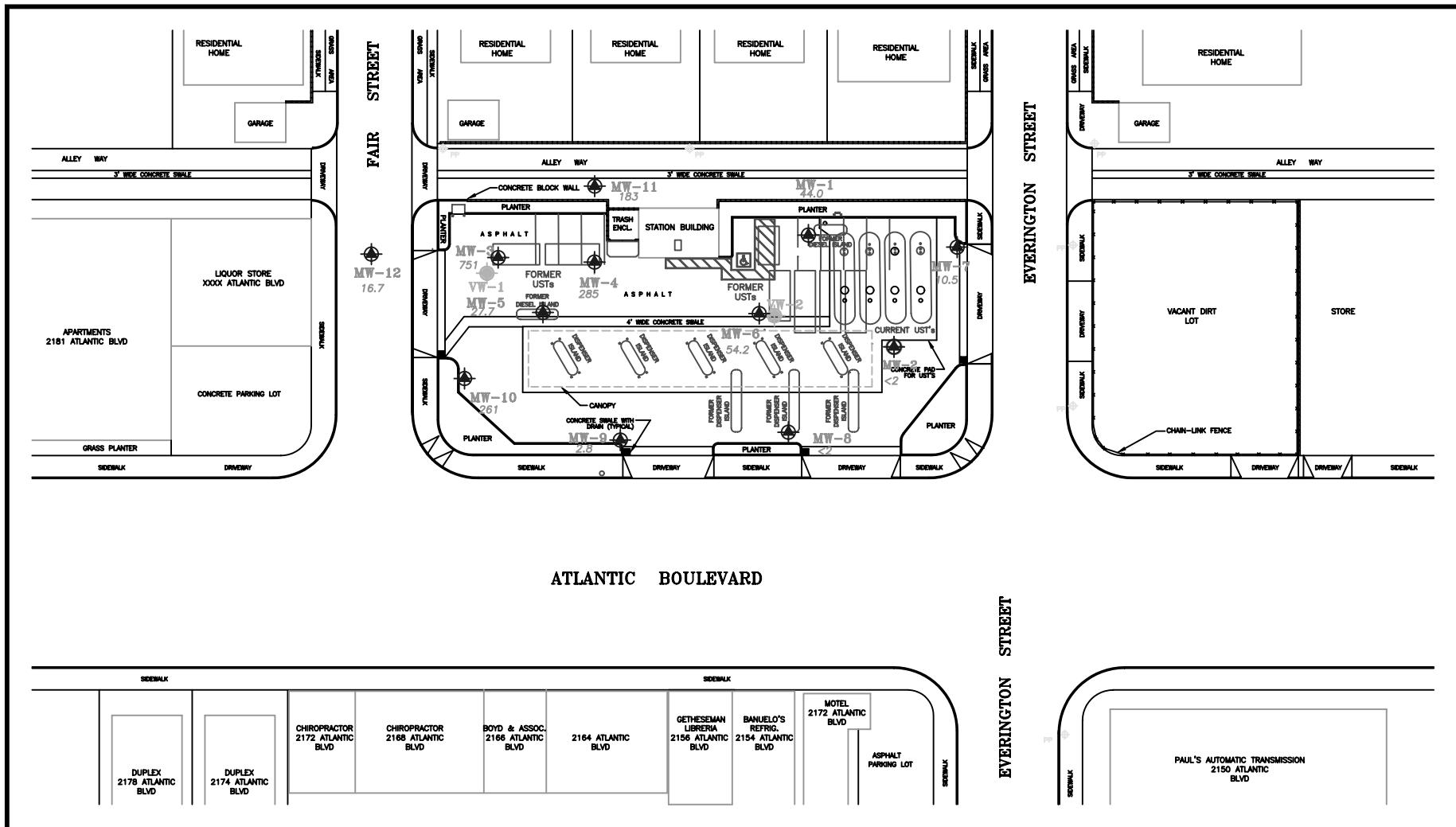
1

DRAWING NUMBER:
G51SCM5312

FIGURE 7



Design By: Adapted from RFA provided Site Map	Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY XYLENE CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	<p>0 SCALE 60' (APPROXIMATE DIMENSIONS)</p>		1 DRAWING NUMBER: G51SCM5312 FIGURE 8



LEGEND:

- VW-2 DUAL-COMPLETION WELL
- MW-12 GROUNDWATER MONITORING WELL

<2
751

LESS THAN LAB LIMIT
MTBE CONCEN. BY EPA METHOD 8260B(ppb), 07/05/2005

Design By: Adapted from RFA provided Site Map



15701 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
PHONE: (714) 890-7129



Drawn By: S.P.
Date: 11/11/2002
Rev.: 08/11/2005

0 SCALE 60'
(APPROXIMATE DIMENSIONS)

**G & M OIL COMPANY
SERVICE STATION #51**

**2155 S. ATLANTIC BOULEVARD
COMMERCE, CA 90040**

SITE VICINTY

**MTBE CONCENTRATION
IN GROUNDWATER**

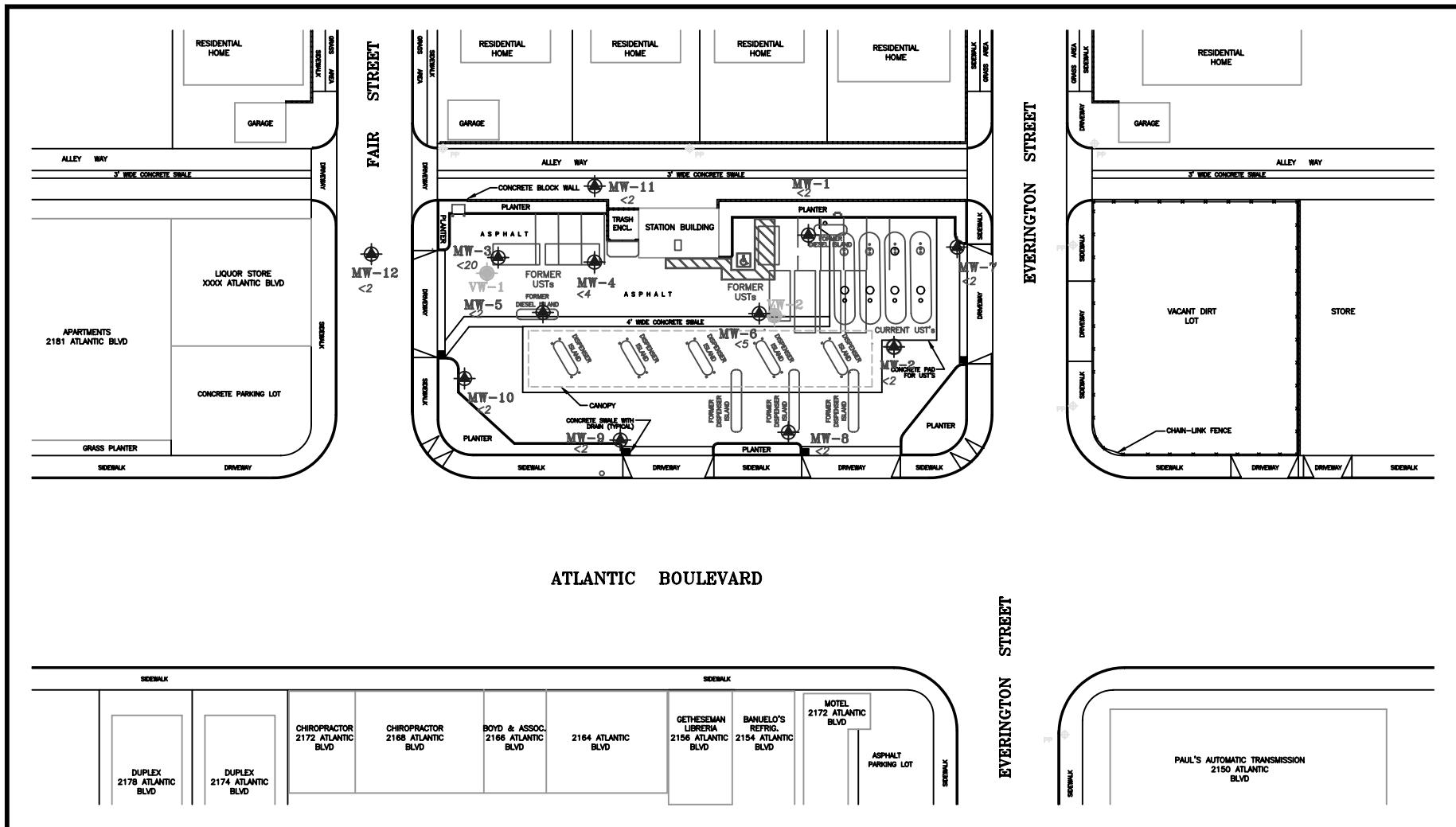
DRAWING NUMBER:
G51SCM5312

FIGURE 9

* Environmental Products and Services * Site Assessment and Remediation
* Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management

1

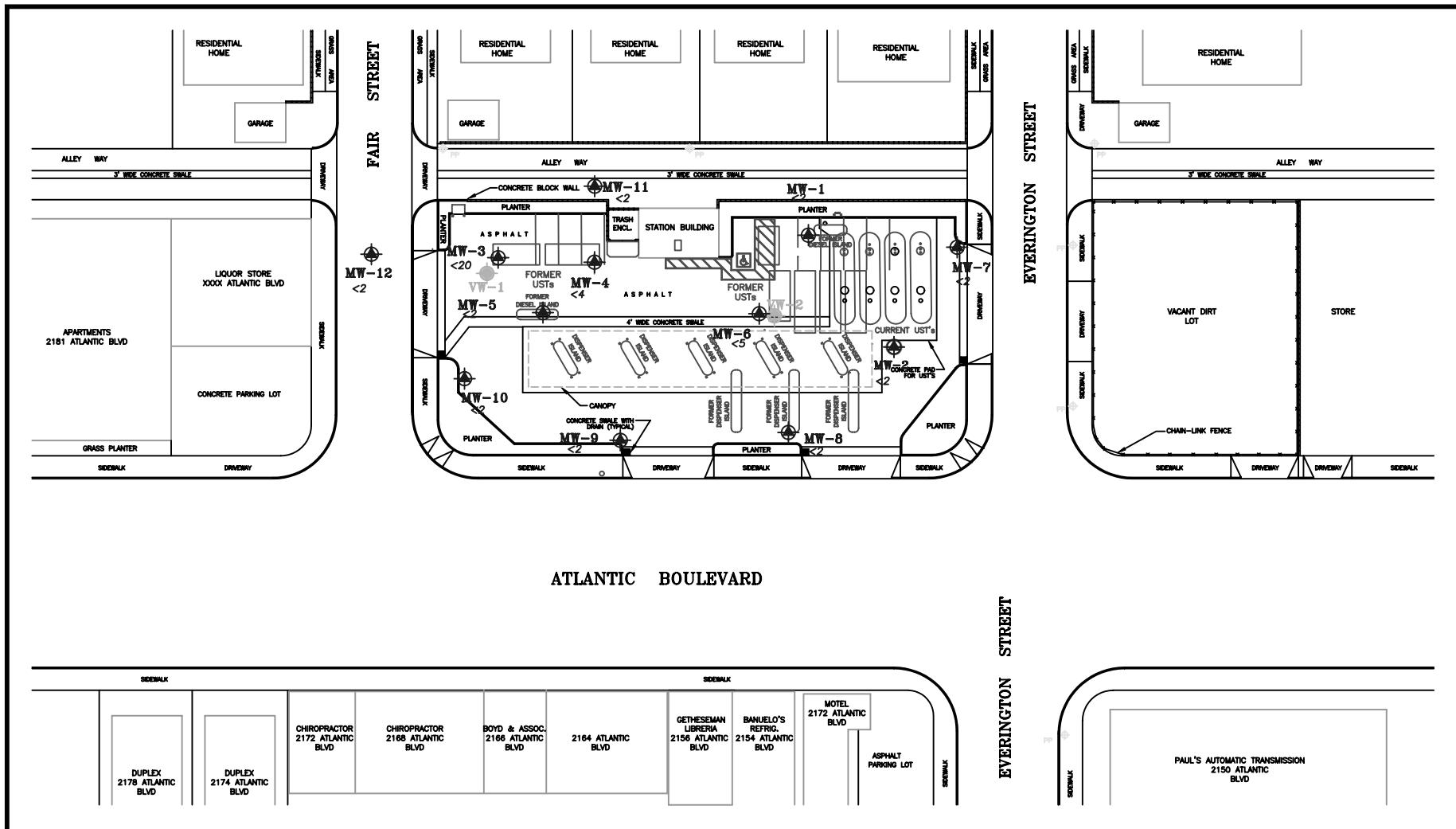
1



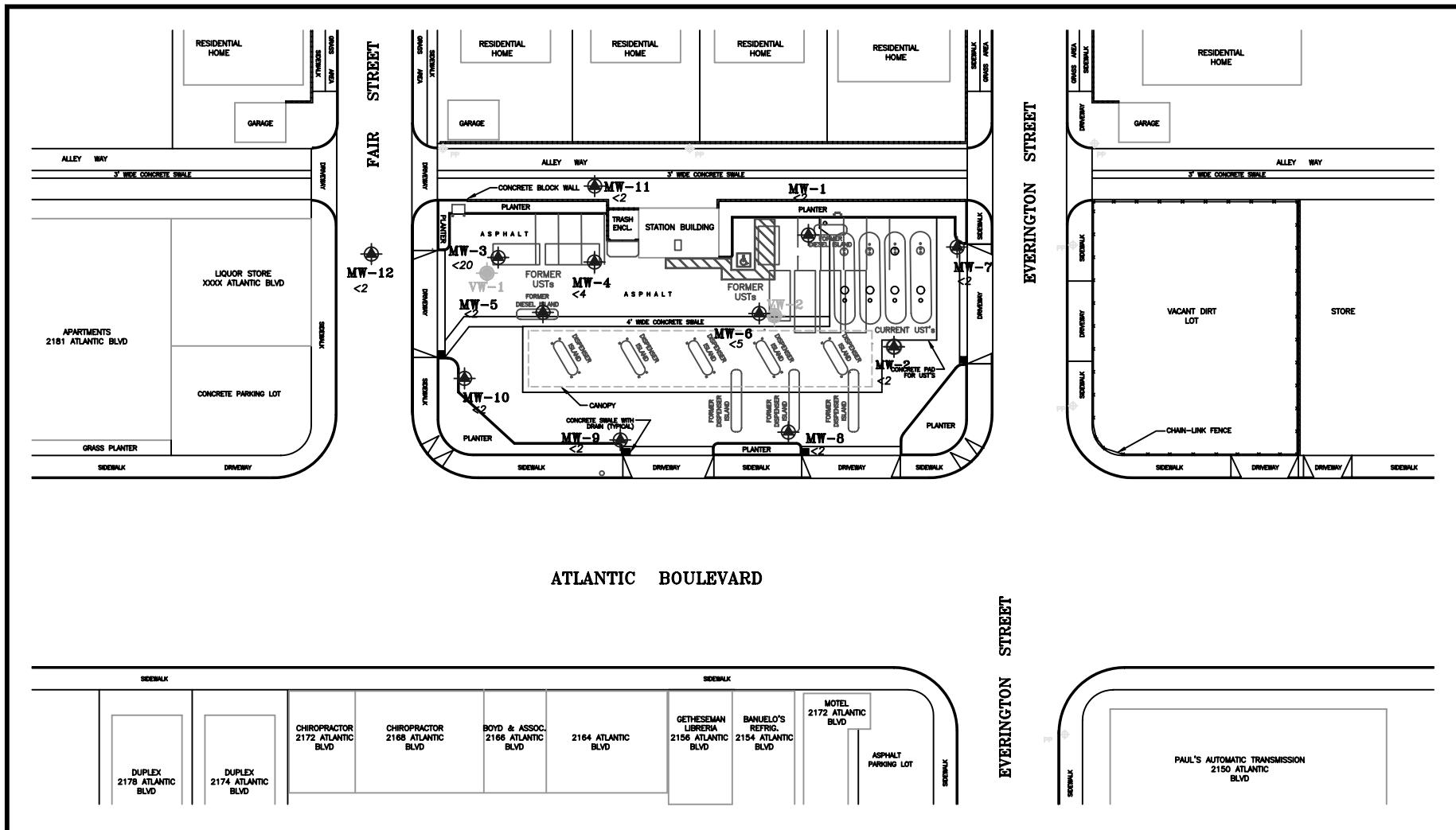
Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040		SITE VICINTY ETBE CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O E S W T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312	1	

* Environmental Products and Services * Site Assessment and Remediation
 * Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management

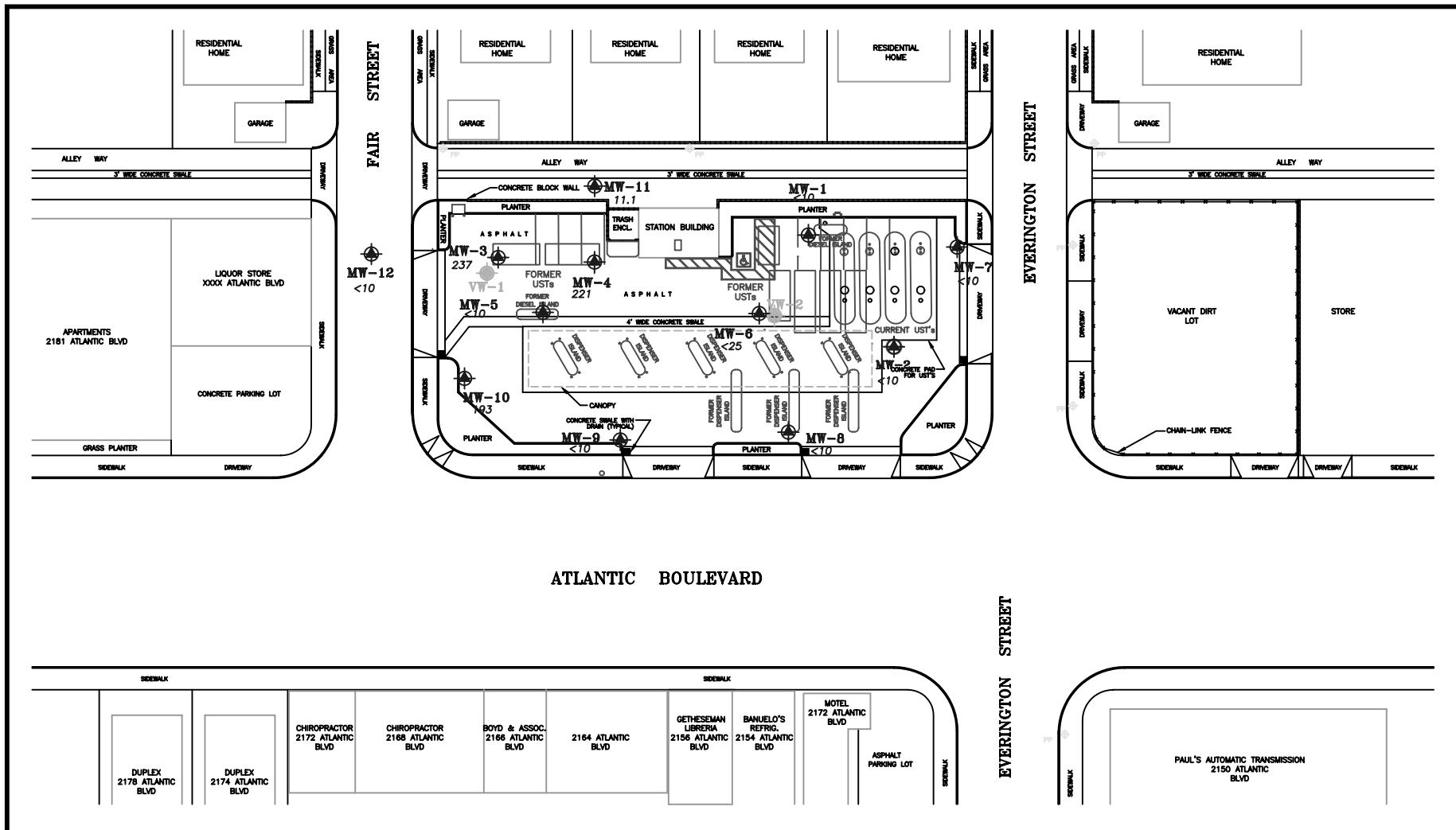
FIGURE 10



Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY DIPE CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. * Environmental Products and Services * Site Assessment and Remediation * Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management	15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O E S W T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312 FIGURE 11



Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY TAME CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC.  15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129 <small>* Environmental Products and Services * Site Assessment and Remediation * Air/Water/Soil Permitting and Monitoring * Hazardous Waste Management</small>		0 SCALE 60' <small>(APPROXIMATE DIMENSIONS)</small>		1 DRAWING NUMBER: G51SCM5312 FIGURE 12



Design By: Adapted from RFA provided Site Map		Drawn By: S.P. Date: 11/11/2002 Rev.: 08/11/2005	G & M OIL COMPANY SERVICE STATION #51 2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040	SITE VICINTY TBA CONCENTRATION IN GROUNDWATER
ATLAS ENVIRONMENTAL ENGINEERING, INC. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649 PHONE: (714) 890-7129	N O E S W T H	0 SCALE 60' (APPROXIMATE DIMENSIONS)	DRAWING NUMBER: G51SCM5312	1 1 FIGURE 13

Fig. 14
**Field Data and Model Predicted Time Vs. MTBE Concentration
Profile for Down-Gradient**
MW-3

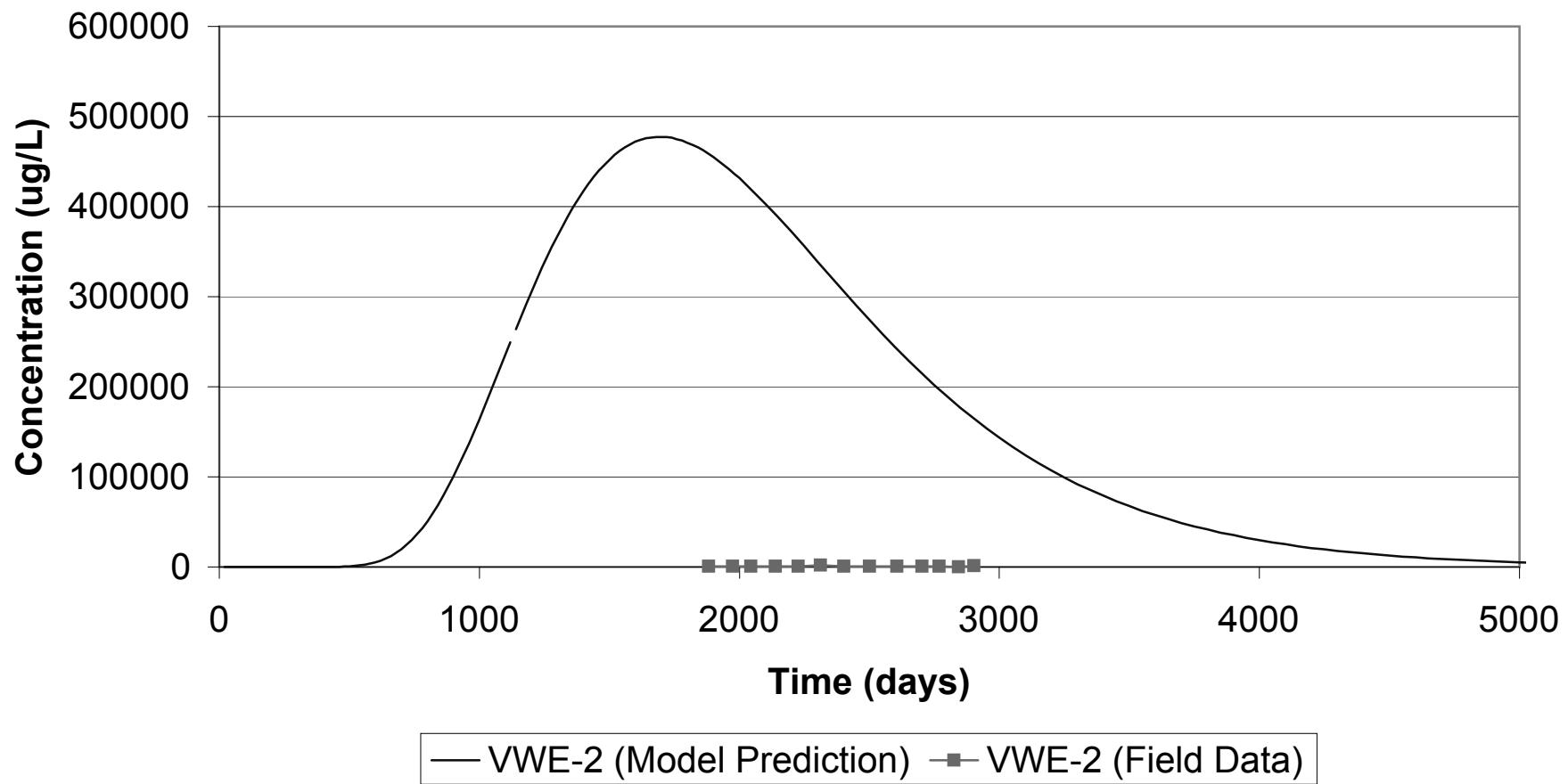


Fig. 15
**Field Data and Model Predicted Time Vs. MTBE Concentration
Profile for Down-Gradient**
MW-12

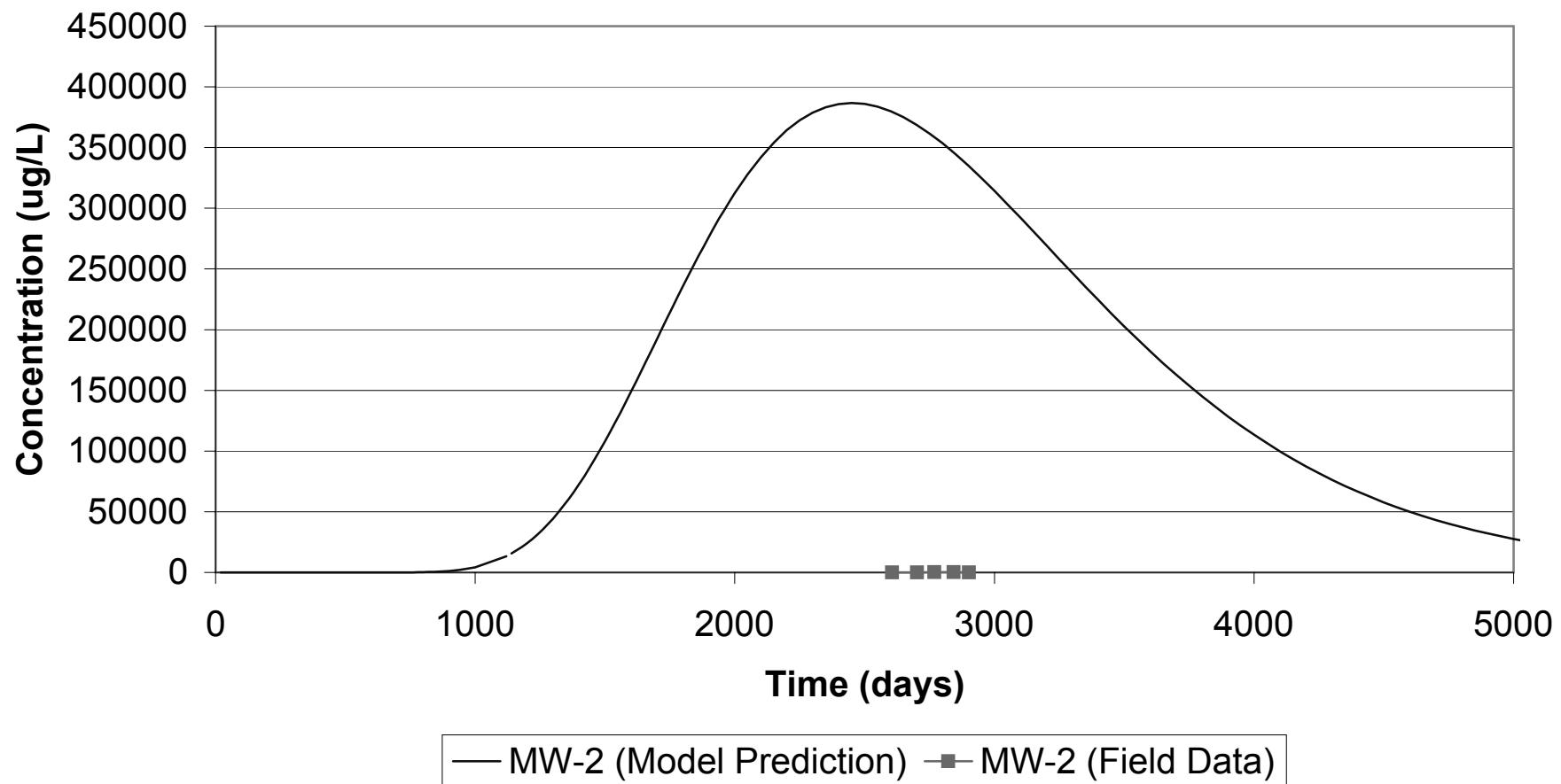
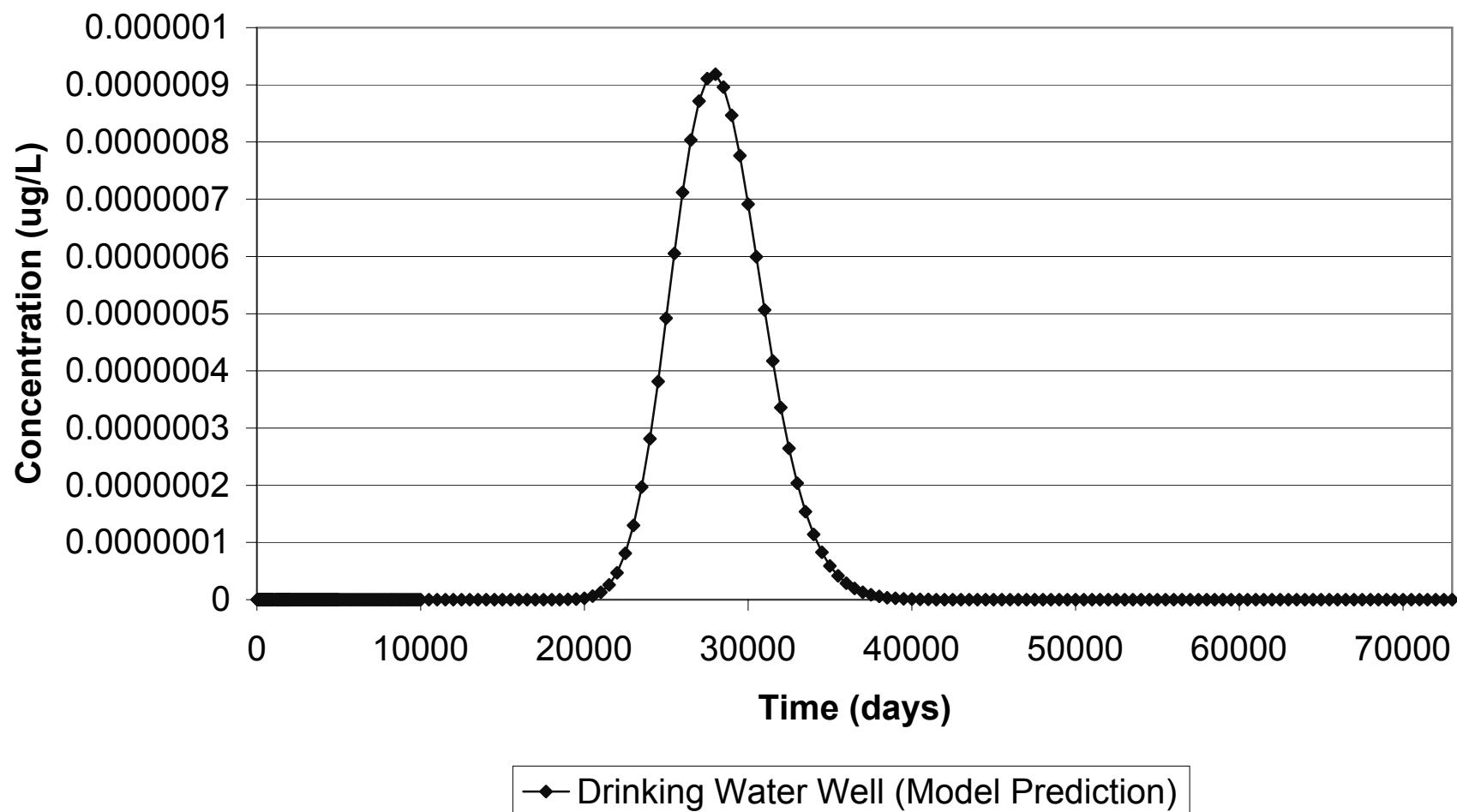


Fig. 16
**Model Predicted Time Vs. MTBE Concentration Profile for
Drinking Water Well**



APPENDIX A

G&M OIL COMPANY STATION #51
QUARTERLY STATUS REPORT
3RD QUARTER 2005

SITE LOCATION:	2155 S. Atlantic Blvd., Commerce, CA 90040
OWNER/OPERATOR:	G&M Oil Co., 16868 "A" Street, Huntington Beach, CA 92647
CONTACT:	Ms. Jennifer Talbert
LEAD AGENCY:	Los Angeles Regional Water Quality Control Board
AGENCY CONTACT:	Mr. Arman Toumari

Site Activities this Quarter

- Quarterly groundwater monitoring and sampling was performed on July 5, 2005. Approx. 595 gal. of groundwater purged prior to sampling wells. Purge water removed utilizing a vacuum truck.
- Additional analytical data presented in **Table 2**.

Future Site Activities

- ATLAS anticipates to continue quarterly groundwater monitoring, sampling and reporting for 4th Quarter 2005.

Quarterly Summary

Total GW Monitoring Wells:	12
GW Wells Gauged:	12
GW Wells Sampled:	12
Wells with Liquid Phase Hydrocarbons(LPH):	0
Gallons of LPH Removed this Quarter:	0
Gallons of LPH Removed to Date:	4.75
Depth to Groundwater (feet):	87.37 to 89.02
Groundwater Elevation (feet):	59.40 to 59.85
Approximate Groundwater Gradient(ft/ft)	0.006 to 0.002
Approximate Groundwater Flow Direction:	Southerly
Consistent with Last Quarter:	Yes

Analytical Summary

TPHd Concentrations	(µ g/L):	<500
TPHg Concentrations	(µ g/L):	<50 to 6,710
Benzene Concentrations	(µ g/L):	<1 to 1,600
Toluene Concentrations	(µ g/L):	<1 to 557
Ethylbenzene Concentrations	(µ g/L):	<1 to 270
Total Xylenes Concentrations	(µ g/L):	<2 to 1,130
MTBE (EPA 8260) Concentrations	(µ g/L):	<2 to 751
ETBE Concentrations	(µ g/L):	<2 to <20
DIPE Concentrations	(µ g/L):	<2 to <20
TAME Concentrations	(µ g/L):	<2 to <20
TBA Concentrations	(µ g/L):	<10 to 237

**ATLAS ENVIRONMENTAL
ENGINEERING, INC.**
15701 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
(714) 890 - 7129

PROJECT STATUS REPORT

G&M OIL COMPANY S.S. #51

2155 S. ATLANTIC BOULEVARD

COMMERCE, CA 90040

AE JOB NO./INV.: G51-Q305

DATE: JULY 5, 2005

OBSERVATION WELLS

NO.	DTW	DTP	PT	GALLONS	DTB	DIA.	ELEVATION			ODORS		F/P				
							FEET	REMOVED	FEET	INCH.	CDTW	SWE	E-WAT	YES	NO	SLIGHT
MW-1	88.43			56.00	109.77	4.00	88.43	148.21	59.78		-	X	-	-	-	X
MW-2	88.30			52.00	108.12	4.00	88.30	148.07	59.77		-	X	-	-	-	X
MW-3	88.26			50.00	107.18	4.00	88.26	147.89	59.63		-	X	-	-	-	X
MW-4	88.98			48.00	107.12	4.00	88.98	148.58	59.60		-	X	-	-	-	X
MW-5	88.00			51.00	107.28	4.00	88.00	147.45	59.45		-	X	-	-	-	X
MW-6	88.46			54.00	108.95	4.00	88.46	148.14	59.68		-	X	-	-	-	X
MW-7	87.87			49.00	106.36	4.00	87.87	147.72	59.85		-	X	-	-	-	X
MW-8	88.12			31.00	99.82	4.00	88.12	147.76	59.64		-	X	-	-	-	X
MW-9	88.12			47.00	105.96	4.00	88.12	147.64	59.52		-	X	-	-	-	X
MW-10	88.03			53.00	108.33	4.00	88.03	147.50	59.47		-	X	-	-	-	X
MW-11	89.02			48.00	107.22	4.00	89.02	148.68	59.66		-	X	-	-	-	X
MW-12	87.37			56.00	108.68	4.00	87.37	146.77	59.40		-	X	-	-	-	X

EXPLANATION

DTW - DEPTH TO WATER FROM SURFACE MEASUREMENTS IN FEET	DTP - DEPTH TO PRODUCT FROM SURFACE DTB - DEPTH TO BOTTOM	PT - PRODUCT THICKNESS DIA - WELL DIAMETER
SWE - SURVEYED WELL HEAD ELEVATION	E-WAT - ELEVATION OF WATER	F/P - FREE PRODUCT
CDTW - CORRECTED DEPTH TO WATER FOR PRESENCE OF FREE PRODUCT (USING SPECIFIC GRAVITY OF 0.75)		

REMARKS

QUARTERLY SAMPLING

THE REMOVED PRODUCT AND/OR PRODUCT/GROUNDWATER MIXTURE WAS
REMOVED USING A VACUUM TRUCK WITH A STORAGE TANK, FOR PROPER
DISPOSAL BY GENERATOR.

FREE PRODUCT REMOVED: APPROX. 0.00 GALLONS	TOTAL TO DATE: 4.75 GALLONS
GROUNDWATER(*) REMOVED: APPROX. 595.00 GALLONS	TOTAL TO DATE: 5736.25 GALLONS

(*) PRODUCT/GROUNDWATER MIXTURE/DECON. WATER

55 GALLON DRUM: PROD. GALLONS	DIA TD	DTW DTP
WATER GALLONS		

DATA RECORDED BY: FELIX VELASQUEZ/ ROGER GONZALEZ	INPUT BY: KB
---	--------------

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-1</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>109.77</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.40</u>	Ft.	Est. Purge Vol.	<u>55.82</u>	Gal.

Sampling Data

Initial Turbidity	<u>98.60</u> <th></th> <th>Final Turbidity</th> <td><u>3.29</u></td> <th></th>		Final Turbidity	<u>3.29</u>	
D.O.	<u>2.60</u>	ppm	ORP	<u>404.00</u>	mV
Time (MT)	<u>830</u>	<u>835</u>	<u>840</u>	<u>845</u>	<u>850</u>
EC	<u>1445</u>	<u>1412</u>	<u>1423</u>	<u>1427</u>	<u>1430</u>
pH	<u>7.47</u>	<u>7.33</u>	<u>7.23</u>	<u>7.16</u>	<u>7.11</u>
Temp. (°F)	<u>80.4</u>	<u>79.5</u>	<u>78.3</u>	<u>76.6</u>	<u>77.0</u>
(°C)	<u>26.9</u>	<u>26.4</u>	<u>25.7</u>	<u>24.8</u>	<u>25.0</u>
Gal.	<u>9.00</u>	<u>18.00</u>	<u>27.00</u>	<u>36.00</u>	<u>45.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>92.21</u>	Ft.	Total Well Depth	<u>109.77</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-2</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>108.12</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.30</u>	Ft.	Est. Purge Vol.	<u>51.77</u>	Gal.

Sampling Data

Initial Turbidity	<u>98.60</u>		Final Turbidity	<u>3.22</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>47.00</u>	mV
Time (MT)	<u>948</u>	<u>953</u>	<u>958</u>	<u>1003</u>	<u>1008</u>
EC	<u>1417</u>	<u>1366</u>	<u>1401</u>	<u>1369</u>	<u>1376</u>
pH	<u>7.55</u>	<u>7.33</u>	<u>7.28</u>	<u>7.24</u>	<u>7.24</u>
Temp. (°F)	<u>79.9</u>	<u>15.4</u>	<u>75.6</u>	<u>75.9</u>	<u>75.2</u>
(°C)	<u>26.6</u>	<u>26.1</u>	<u>24.2</u>	<u>24.4</u>	<u>24.0</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>90.36</u>	Ft.	Total Well Depth	<u>108.12</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-3</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>107.18</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.26</u>	Ft.	Est. Purge Vol.	<u>49.42</u>	Gal.

Sampling Data

Initial Turbidity	<u>90.20</u>		Final Turbidity	<u>3.28</u>	
D.O.	<u>3.00</u>	ppm	ORP	<u>-196.00</u>	mV
Time (MT)	<u>1415</u>	<u>1422</u>	<u>1429</u>	<u>1436</u>	<u>1441</u>
EC	<u>1462</u>	<u>1425</u>	<u>1448</u>	<u>1468</u>	<u>1621</u>
pH	<u>7.34</u>	<u>7.20</u>	<u>7.15</u>	<u>716.00</u>	<u>7.34</u>
Temp. (°F)	<u>80.4</u>	<u>15.4</u>	<u>76.3</u>	<u>75.7</u>	<u>73.76</u>
(°C)	<u>26.9</u>	<u>25.1</u>	<u>24.6</u>	<u>24.3</u>	<u>23.2</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>92.69</u>	Ft.	Total Well Depth	<u>107.18</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-4</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>107.12</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.98</u>	Ft.	Est. Purge Vol.	<u>47.38</u>	Gal.

Sampling Data

Initial Turbidity	<u>98.90</u>		Final Turbidity	<u>3.20</u>	
D.O.	<u>3.40</u>	ppm	ORP	<u>-111.00</u>	mV
Time (MT)	<u>1320</u>	<u>1327</u>	<u>1335</u>	<u>1342</u>	<u>1349</u>
EC	<u>1401</u>	<u>1394</u>	<u>1420</u>	<u>1435</u>	<u>1642</u>
pH	<u>7.21</u>	<u>7.07</u>	<u>7.04</u>	<u>7.03</u>	<u>7.79</u>
Temp. (°F)	<u>82.0</u>	<u>15.4</u>	<u>76.8</u>	<u>76.5</u>	<u>76.6</u>
(°C)	<u>27.8</u>	<u>25.8</u>	<u>24.9</u>	<u>24.7</u>	<u>24.8</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>91.66</u>	Ft.	Total Well Depth	<u>107.12</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/2/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-5</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>107.28</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.00</u>	Ft.	Est. Purge Vol.	<u>50.36</u>	Gal.

Sampling Data

Initial Turbidity	<u>90.40</u>		Final Turbidity	<u>3.29</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>105.00</u>	mV
Time (MT)	<u>1242</u>	<u>1246</u>	<u>1251</u>	<u>1255</u>	<u>1300</u>
EC	<u>1341</u>	<u>1349</u>	<u>1373</u>	<u>1362</u>	<u>1364</u>
pH	<u>7.55</u>	<u>7.44</u>	<u>7.24</u>	<u>7.64</u>	<u>7.64</u>
Temp. (°F)	<u>78.4</u>	<u>15.4</u>	<u>74.3</u>	<u>74.8</u>	<u>73.9</u>
(°C)	<u>25.8</u>	<u>24.4</u>	<u>23.5</u>	<u>23.8</u>	<u>24.1</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>91.66</u>	Ft.	Total Well Depth	<u>107.28</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-6</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>108.95</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.46</u>	Ft.	Est. Purge Vol.	<u>53.52</u>	Gal.

Sampling Data

Initial Turbidity	<u>72.00</u>		Final Turbidity	<u>3.90</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>84.00</u>	mV
Time (MT)	<u>1025</u>	<u>1030</u>	<u>1035</u>	<u>1040</u>	<u>1045</u>
EC	<u>1618</u>	<u>1613</u>	<u>1598</u>	<u>1623</u>	<u>1660</u>
pH	<u>7.42</u>	<u>7.18</u>	<u>7.19</u>	<u>7.18</u>	<u>7.16</u>
Temp. (°F)	<u>82.2</u>	<u>15.4</u>	<u>78.1</u>	<u>77.0</u>	<u>75.4</u>
(°C)	<u>27.9</u>	<u>25.2</u>	<u>25.6</u>	<u>25.0</u>	<u>24.1</u>
Gal.	<u>9.00</u>	<u>18.00</u>	<u>27.00</u>	<u>36.00</u>	<u>45.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>91.33</u>	Ft.	Total Well Depth	<u>108.95</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-7</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>106.36</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>87.87</u>	Ft.	Est. Purge Vol.	<u>48.30</u>	Gal.

Sampling Data

Initial Turbidity	<u>120.60</u>		Final Turbidity	<u>3.70</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>147.00</u>	mV
Time (MT)	<u>910</u>	<u>915</u>	<u>920</u>	<u>925</u>	<u>933</u>
EC	<u>1279</u>	<u>1308</u>	<u>1294</u>	<u>1280</u>	<u>1309</u>
pH	<u>7.61</u>	<u>7.52</u>	<u>7.18</u>	<u>7.17</u>	<u>7.17</u>
Temp. (°F)	<u>89.4</u>	<u>15.4</u>	<u>79.7</u>	<u>80.8</u>	<u>78.4</u>
(°C)	<u>31.9</u>	<u>27.6</u>	<u>26.5</u>	<u>27.1</u>	<u>25.8</u>
Gal.	<u>9.00</u>	<u>18.00</u>	<u>27.00</u>	<u>36.00</u>	<u>49.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>90.29</u>	Ft.	Total Well Depth	<u>106.36</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-8</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>99.82</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.12</u>	Ft.	Est. Purge Vol.	<u>30.56</u>	Gal.

Sampling Data

Initial Turbidity	<u>98.90</u>		Final Turbidity	<u>3.88</u>	
D.O.	<u>3.00</u>	ppm	ORP	<u>130.00</u>	mV
Time (MT)	<u>1100</u>	<u>1105</u>	<u>1108</u>	<u>1112</u>	<u>1116</u>
EC	<u>1405</u>	<u>1379</u>	<u>1394</u>	<u>1414</u>	<u>1407</u>
pH	<u>7.26</u>	<u>7.16</u>	<u>7.17</u>	<u>7.22</u>	<u>7.22</u>
Temp. (°F)	<u>22.5</u>	<u>15.4</u>	<u>76.8</u>	<u>75.0</u>	<u>74.3</u>
(°C)	<u>27.5</u>	<u>25.6</u>	<u>24.9</u>	<u>23.9</u>	<u>23.5</u>
Gal.	<u>6.00</u>	<u>12.00</u>	<u>18.00</u>	<u>24.00</u>	<u>31.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>90.77</u>	Ft.	Total Well Depth	<u>99.82</u>	Ft.
----------------	--------------	-----	------------------	--------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-9</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>105.86</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.12</u>	Ft.	Est. Purge Vol.	<u>46.34</u>	Gal.

Sampling Data

Initial Turbidity	<u>90.60</u>		Final Turbidity	<u>3.60</u>	
D.O.	<u>2.40</u>	ppm	ORP	<u>96.00</u>	mV
Time (MT)	<u>1130</u>	<u>1134</u>	<u>1138</u>	<u>1142</u>	<u>1146</u>
EC	<u>1262</u>	<u>1364</u>	<u>1327</u>	<u>1359</u>	<u>1364</u>
pH	<u>7.40</u>	<u>7.22</u>	<u>7.15</u>	<u>7.41</u>	<u>7.18</u>
Temp. (°F)	<u>87.4</u>	<u>15.4</u>	<u>80.1</u>	<u>79.7</u>	<u>77.2</u>
(°C)	<u>30.8</u>	<u>27.3</u>	<u>26.7</u>	<u>26.5</u>	<u>25.1</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>91.26</u>	Ft.	Total Well Depth	<u>105.86</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-10</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>108.33</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>88.03</u>	Ft.	Est. Purge Vol.	<u>53.02</u>	Gal.

Sampling Data

Initial Turbidity	<u>92.60</u>		Final Turbidity	<u>3.28</u>	
D.O.	<u>3.00</u>	ppm	ORP	<u>91.00</u>	mV
Time (MT)	<u>1205</u>	<u>1210</u>	<u>1215</u>	<u>1220</u>	<u>1225</u>
EC	<u>1467</u>	<u>1377</u>	<u>1387</u>	<u>1397</u>	<u>1440</u>
pH	<u>7.80</u>	<u>7.25</u>	<u>7.19</u>	<u>7.20</u>	<u>7.27</u>
Temp. (°F)	<u>83.3</u>	<u>15.4</u>	<u>79.0</u>	<u>79.2</u>	<u>78.8</u>
(°C)	<u>28.5</u>	<u>26.1</u>	<u>26.1</u>	<u>26.2</u>	<u>26.0</u>
Gal.	<u>9.00</u>	<u>18.00</u>	<u>27.00</u>	<u>36.00</u>	<u>45.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>92.14</u>	Ft.	Total Well Depth	<u>108.33</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-11</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>107.22</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>89.02</u>	Ft.	Est. Purge Vol.	<u>47.54</u>	Gal.

Sampling Data

Initial Turbidity	<u>90.20</u>		Final Turbidity	<u>3.29</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>-98.00</u>	mV
Time (MT)	<u>1615</u>	<u>1621</u>	<u>1627</u>	<u>1635</u>	<u>1642</u>
EC	<u>1442</u>	<u>1455</u>	<u>1462</u>	<u>1454</u>	<u>1459</u>
pH	<u>7.16</u>	<u>7.10</u>	<u>7.06</u>	<u>7.06</u>	<u>7.04</u>
Temp. (°F)	<u>75.2</u>	<u>15.4</u>	<u>74.7</u>	<u>75.0</u>	<u>74.8</u>
(°C)	<u>24.0</u>	<u>23.8</u>	<u>23.7</u>	<u>23.9</u>	<u>23.8</u>
Gal.	<u>8.00</u>	<u>16.00</u>	<u>24.00</u>	<u>32.00</u>	<u>40.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>92.66</u>	Ft.	Total Well Depth	<u>107.22</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

SITE/JOB	<u>G&M OIL STATION #51</u>	DATE	<u>7/5/2005</u>
ADDRESS	<u>2155 S. ATLANTIC BLVD., COMMERCE, CA 90040</u>		
PERSONNEL	<u>FELIX/ROGER</u>	WEATHER	<u>SUNNY</u>
WELL NO.	<u>MW-12</u>	EQUIPMENT	<u>VACUUM TRUCK</u>

Before Purging

Total Well Depth	<u>108.68</u>	Ft.	Well Diameter	<u>4.00</u>	Inch.
Depth to Water	<u>87.37</u>	Ft.	Est. Purge Vol.	<u>55.66</u>	Gal.

Sampling Data

Initial Turbidity	<u>96.40</u>		Final Turbidity	<u>3.70</u>	
D.O.	<u>2.80</u>	ppm	ORP	<u>98.00</u>	mV
Time (MT)	<u>1515</u>	<u>1522</u>	<u>1529</u>	<u>1536</u>	<u>1542</u>
EC	<u>1487</u>	<u>1364</u>	<u>1379</u>	<u>1421</u>	<u>1409</u>
pH	<u>7.43</u>	<u>7.77</u>	<u>7.50</u>	<u>7.28</u>	<u>7.18</u>
Temp. (°F)	<u>78.1</u>	<u>15.4</u>	<u>75.6</u>	<u>73.8</u>	<u>74.8</u>
(°C)	<u>25.6</u>	<u>24.8</u>	<u>24.2</u>	<u>23.2</u>	<u>23.8</u>
Gal.	<u>9.00</u>	<u>18.00</u>	<u>27.00</u>	<u>36.00</u>	<u>45.00</u>
Time (MT)	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____
Temp. (°F)	_____	_____	_____	_____	_____
(°C)	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____

After Purging/Before Sample Collection

Depth to Water	<u>90.29</u>	Ft.	Total Well Depth	<u>108.68</u>	Ft.
----------------	--------------	-----	------------------	---------------	-----

SAMPLING PROCEDURES FOR GROUNDWATER

Sample Collection - Purging Method

1. Integrity of the well cover, well cap and top of casing are established and noted for future reference.
2. Non-dedicated equipment is decontaminated using a steam cleaner or "three bucket" wash.
3. Depth to water, depth to product (if present) and total depth of well are determined using an Oil Recovery Systems' Interface probe or equivalent (0.01 accuracy).
4. Groundwater is removed from the well by bailing or pumping until dry or until at least 4 well volumes have been purged and water quality parameters (pH, conductivity and temperature) stabilized. The water is discharged into DOT 55 gallon drums.
5. After the well has recovered at least 80 percent, a sample is taken just below the water surface using a bailer (teflon, stainless steel or disposable bottom emptying) and placed into a laboratory supplied containers. The containers are completely filled and the cap immediately placed over the top and securely tightened. Vials are inverted and tapped to determine if air bubbles are present. Samples are labeled, and placed on ice until delivery to the laboratory.

Sample Collection - No Purge Method

1. Integrity of the well cover, well cap and top of casing are established and noted for future reference.
2. Non-dedicated equipment is decontaminated using a steam cleaner or "three bucket" wash.
3. Depth to water, depth to product (if present) and total depth of well are determined using an Oil Recovery Systems' Interface probe or equivalent (0.01 accuracy).
4. A sample is taken just below the water surface using a bailer (Teflon, stainless steel or disposable, all bottom emptying) and placed into a laboratory supplied vial. The vial is completely filled, cap immediately placed over the top and securely tightened. The vial is inverted and tapped to determine if air bubbles are present. If none, the sample is labeled, and placed on ice until delivery to the laboratory.

Quality Control/Quality Assurance

1. The field data sheet is completed with all pertinent data such as; integrity of well, quantity of water purged, pH, temperature, and specific conductance, if available.
2. The samples are transported to the laboratory as soon as possible following chain-of-custody procedures. In the event a holding time of greater than 7 days is required, the laboratory will be requested to supply vials with the appropriate preservatives for the analyses requested.
3. Wells are sampled from the order of least to highest concentrations, if known.
4. Site conditions are noted which may potentially contaminate the sample i.e. smoke, vapors from running engines, etc.
5. If a single bailer is used for collection of all samples, an "equipment blank" sample will be collected following the same protocol of sample collection. The same water supply used to rinse the equipment will be used to collect the blank sample.
6. A trip blank, if required, supplied by the analytical laboratory will be stored and transported with the samples until their delivery back to the laboratory.
7. The blank samples will be analyzed for all constituents.

Sample Shipment and Chain-of-Custody

Complete records are kept on each sample including sampling date, sample type, location, and other pertinent information. The sample containers are banded and sealed with chain-of-custody seals. The samples are chilled in an ice chest using block or blue ice. Care is taken not cause sample freezing which may result in container breakage during transport to the laboratory.

Chain-of-Custody procedures, generally described in Test Methods for Evaluating Solid Waste, SW-846, U.S. EPA, 1982, are followed. A chain-of-custody form accompanies the sample from the place of collection to the laboratory, and through the completion of the analytical process. The chain-of-custody form includes project identification information, the sample type and number, the date and time of sampling, the chemical analyses requested, and the identity of the person taking possession at each change of custody.

Equipment Cleaning

When steam-cleaning is not available, the "three bucket" wash is used. The three bucket wash consists of an Alconox solution cleaning, a tap water rinse and a distilled water rinse. No solvent (hexane) rinses will be used. For bailers, the Alconox solution is flushed completely through the inside followed by flushing with tap and distilled water. When submersible, bladder or double-diaphragm pumps are used (non-dedicated), the solution of Alconox is cycled through the pump body and hoses followed by similar water rinses.

Waste Storage and Disposal

The effluent and/or decontamination water generated during the testing and equipment cleaning is placed in 55 gallon D.O.T. drums. The drums are sealed, labeled and left on site pending disposal/treatment by owner.

APPENDIX B



Southland Technical Services, Inc.

Environmental Laboratories

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD **LOS ANGELES REGION**

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Southland Technical Services Environmental Labs

Address: 7801 Telegraph Road, Suite L, Montebello, CA 90640

Telephone/Fax: (323) 888-0728 / (323) 888-1509

ELAP Certification No.: 1986 Expiration Date: 04-30-2006

Authorized Signature
Name, Title (Print): Roger Wang, Laboratory Director

Signature, Date: _____, 07-13-2005

Client: Atlas Environmental Engineering
Project: G & M Oil Co. #51
Project Site: 2155 S. Atlantic Blvd., Commerce, CA.
Lab Job No.: R507013

Date(s) Sampled: 07-05-2005 To 07-05-2005

Date(s) Received: 07-05-2005 To 07-05-2005

Date(s) Reported: 07-13-2005

Chain of custody received: Yes X No _____



Southland Technical Services, Inc.

Environmental Laboratories

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses # of Samples: # of Samples Subcontracted:

EPA 8015M (Gasoline)	12	0
EPA 8015M (Diesel)	12	0
EPA 8260B (BTEX & Oxygenates)	12	0
Methane by GC/FID	12	0

Sample Condition: Chilled, intact, good condition

Inorganic Analyses # of Samples: # of Samples Subcontracted:

Nitrate (EPA 352.1)	12	0
Sulfate (EPA 375.4)	12	0
Ferrous Iron (Colormetry)	12	0

Sample Condition: Chilled, intact, good condition

Microbiological Analyses # of Samples: # of Samples Subcontracted:

0	0
---	---

Sample Condition:

Other Types of Analyses # of Samples: # of Samples Subcontracted:

0	0
---	---

Sample Condition:



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT

Reporting Unit: µg/L (ppb)

Date of Analysis for TPH (Gasoline)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Date of Extraction for TPH (Gasoline)	NA	NA	NA	NA	NA	NA	NA
Extraction Method for TPH (Gasoline)	5030	5030	5030	5030	5030	5030	5030
Dilution Factor for TPH (Gasoline)	1	1	1	10	2	1	
Date of Analysis for TPH (Diesel)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Date of Extraction for TPH (Diesel)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Extraction Solvent for TPH (Diesel)	Hexane	Hexane	Hexane	Hexane	Hexane	Hexane	Hexane
Dilution Factor for TPH (Diesel)	1	1	1	1	1	1	1
LAB SAMPLE I.D.		R507013-1	R507013-2	R507013-3	R507013-4	R507013-5	
CLIENT SAMPLE I.D.		MW-1	MW-2	MW-3	MW-4	MW-5	
COMPOUND	MDL	MB					
TPH-Gasoline (C4 - C12)	50	ND	106	ND	6,710	1,060	113
TPH-Diesel (C13 - C23)	500	ND	ND	ND	ND	ND	ND
Surrogate	Spk Conc.	ACP%	MB % RC	% RC	% RC	% RC	% RC
BFB (for TPH-Gasoline)	20 ppb	70-130	96	100	96	101	102
Diocethyl Phthalate (for TPH-Diesel)	5 ppm	70-130	96	86	94	84	94
							84

SPK Conc.=Spiking Concentration; ACP% =Acceptable Range of Percent; %RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT

Reporting Unit: µg/L (ppb)

Date of Analysis for TPH (Gasoline)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Date of Extraction for TPH (Gasoline)	NA	NA	NA	NA	NA	NA
Extraction Method for TPH (Gasoline)	5030	5030	5030	5030	5030	5030
Dilution Factor for TPH (Gasoline)	2.5	1	1	1	1	1
Date of Analysis for TPH (Diesel)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Date of Extraction for TPH (Diesel)	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
Extraction Solvent for TPH (Diesel)	Hexane	Hexane	Hexane	Hexane	Hexane	Hexane
Dilution Factor for TPH (Diesel)	1	1	1	1	1	1
LAB SAMPLE I.D.	R507013-6	R507013-7	R507013-8	R507013-9	R507013-10	R507013-11
CLIENT SAMPLE I.D.	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
COMPOUND	MDL					
TPH-Gasoline (C4 - C12)	50	3,080	ND	193	51.9	502
TPH-Diesel (C13 - C23)	500	ND	ND	ND	ND	ND
Surrogate	Spk Conc.	ACP%	%RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	99	97	102	97
Dioctyl Phthalate (for TPH-Diesel)	5 ppm	70-130	86	90	88	92
						94
						92

SPK Conc.=Spiking Concentration; ACP%=Acceptable Range of Percent; %RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT

Reporting Unit: µg/L (ppb)

Date of Analysis for TPH (Gasoline)	07-06-05	07-06-05					
Date of Extraction for TPH (Gasoline)	NA	NA					
Extraction Method for TPH (Gasoline)	5030	5030					
Dilution Factor for TPH (Gasoline)	1	1					
Date of Analysis for TPH (Diesel)	07-06-05	07-06-05					
Date of Extraction for TPH (Diesel)	07-06-05	07-06-05					
Extraction Solvent for TPH (Diesel)	Hexane	Hexane					
Dilution Factor for TPH (Diesel)	1	1					
LAB SAMPLE I.D.		R507013-12					
CLIENT SAMPLE I.D.		MW-12					
COMPOUND	MDL	MB					
TPH-Gasoline (C4 - C12)	50	ND	319				
TPH-Diesel (C13 - C23)	500	ND	ND				
Surrogate	Spk Conc.	ACP%	MB %RC	%RC			
BFB (for TPH-Gasoline)	20 ppb	70-130	96	100			
Dioctyl Phthalate (for TPH-Diesel)	5 ppm	70-130	96	94			

SPK Conc.=Spiking Concentration; ACP% =Acceptable Range of Percent; %RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT (EPA 8260B)

Reporting Unit: µg/L (ppb)

DATE ANALYZED		07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
DATE EXTRACTED		----	----	----	----	----	----
DILUTION FACTOR		1	1	1	10	2	1
LAB SAMPLE I.D.		Blank	R507013-1	R507013-2	R507013-3	R507013-4	R507013-5
CLIENT SAMPLE I.D.			MW-1	MW-2	MW-3	MW-4	MW-5
COMPOUND	MDL	EQL	MB				
Benzene	1	1	ND	ND	1,600	104	ND
Toluene	1	1	ND	ND	557	77.5	1.5
Ethylbenzene	1	1	ND	ND	270	21.0	1.1
Total Xylenes	2	2	ND	ND	1,130	106	5.2
Methyl tert-butyl Ether	2	2	ND	44	ND	751	285
Ethyl t-butyl Ether	2	2	ND	ND	ND	ND	ND
Di-isopropyl Ether	2	2	ND	ND	ND	ND	ND
T-amyl-methyl Ether	2	2	ND	ND	ND	ND	ND
Tert-Butanol	10	10	ND	ND	237	221	ND
SURROGATE	SPK CONC.	ACP% %RC	MB %RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	25ppb	70-130	117	118	118	124	125
Toluene-d8	25ppb	70-130	85	81	87	88	92
Bromofluoro-benzene	25ppb	70-130	105	109	105	110	111

SPK Conc.=Spiking Concentration; ACP% =Acceptable Range of Percent; % RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed;

EQL=Estimated Quantification Limit

J=above MDL but below EQL

*: Obtained from a higher dilution analysis.



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT (EPA 8260B)

Reporting Unit: µg/L (ppb)

DATE ANALYZED			07-06-05	07-06-05	07-06-05	07-06-05	07-06-05	07-06-05
DATE EXTRACTED			----	----	----	----	----	----
DILUTION FACTOR			2.5	1	1	1	1	1
LAB SAMPLE I.D.			R50701 3-6	R507013- 7	R507013- 8	R507013- 9	R507013- 10	R507013- 11
CLIENT SAMPLE I.D.			MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
COMPOUND	MDL	EQL						
Benzene	1	1	9.5	ND	ND	ND	ND	282
Toluene	1	1	75.4	ND	5.9	ND	2.1	50.4
Ethylbenzene	1	1	47.4	ND	3.9	ND	1.7	10.4
Total Xylenes	2	2	249	ND	22.5	ND	10.7	51.6
Methyl tert-butyl Ether	2	2	54.2	10.5	ND	2.8	261	183
Ethyl t-butyl Ether	2	2	ND	ND	ND	ND	ND	ND
Di-isopropyl Ether	2	2	ND	ND	ND	ND	ND	ND
T-amyl-methyl Ether	2	2	ND	ND	ND	ND	ND	ND
Tert-Butanol	10	10	ND	ND	ND	ND	193	11.1
SURROGATE	SPK CONC.	ACP%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	25ppb	70-130	128	122	123	120	124	116
Toluene-d8	25ppb	70-130	87	94	87	89	89	90
Bromofluoro-benzene	25ppb	70-130	108	105	111	106	107	107

SPK Conc.=Spiking Concentration; ACP% =Acceptable Range of Percent; %RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed;

EQL=Estimated Quantification Limit

J=above MDL but below EQL



Southland Technical Services, Inc.

Environmental Laboratories

ANALYTICAL TEST RESULT (EPA 8260B)

Reporting Unit: µg/L (ppb)

DATE ANALYZED	07-06-05	07-06-05					
DATE EXTRACTED	----	----					
DILUTION FACTOR	1	1					
LAB SAMPLE I.D.	Blank	R507013-12					
CLIENT SAMPLE I.D.		MW-12					
COMPOUND	MDL	EQL	MB				
Benzene	1	1	ND	35.2			
Toluene	1	1	ND	36.0			
Ethylbenzene	1	1	ND	13.4			
Total Xylenes	2	2	ND	63.3			
Methyl tert-butyl Ether	2	2	ND	16.7			
Ethyl t-butyl Ether	2	2	ND	ND			
Di-isopropyl Ether	2	2	ND	ND			
T-amyl-methyl Ether	2	2	ND	ND			
Tert-Butanol	10	10	ND	ND			
SURROGATE	SPK CONC.	ACP% %	MB %RC	%RC			
Dibromofluoro-methane	25ppb	70-130	117	126			
Toluene-d8	25ppb	70-130	85	90			
Bromofluoro-benzene	25ppb	70-130	105	109			

SPK Conc.=Spiking Concentration; ACP% =Acceptable Range of Percent; % RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed;

EQL=Estimated Quantification Limit

J=above MDL but below EQL



Southland Technical Services, Inc.

Environmental Laboratories

07-13-2005

Client: Atlas Environmental Engineering Inc. Lab Job No.: R507013
Project: G & M Oil Co. #51
Project Site: 2155 S. Atlantic Blvd., Commerce, CA Date Sampled: 07-05-2005
Matrix: Water Date Received: 07-05-2005

Analytical Test Results

Analyte	Method	Date Analyzed	Reporting Unit	Sample Results				Reporting Limit
				MW-1	MW-2	MW-3	MW-4	
Methane	GC/FID	07-06-05	µg/L	5	5.5	243	12	5ug/L
Nitrate	352.1	07-07-05	mg/L (ppm)	20.0	15.1	4.88	19.4	0.01 ppm
Sulfate	375.4	07-07-05	mg/L (ppm)	57.2	44.3	47.5	50.4	1.0 ppm
Ferrous Iron	Colorimetry	07-07-05	mg/L (ppm)	0.08	ND	0.63	1.09	0.05 ppm

Analyte	Method	Date Analyzed	Reporting Unit	Sample Results				Reporting Limit
				MW-5	MW-6	MW-7	MW-8	
Methane	GC/FID	07-07-05	µg/L	ND	6	ND	5.5	µg/L
Nitrate	352.1	07-07-05	mg/L (ppm)	19.4	19.7	15.4	11.7	0.01 ppm
Sulfate	375.4	07-07-05	mg/L (ppm)	62.5	53.3	47.3	49.8	1.0 ppm
Ferrous Iron	Colorimetry	07-07-05	mg/L (ppm)	0.12	0.9	0.09	0.11	0.05 ppm

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.

Environmental Laboratories

07-13-2005

Client: Atlas Environmental Engineering Inc. Lab Job No.: R507013
Project: G & M Oil Co. #51
Project Site: 2155 S. Atlantic Blvd., Commerce, CA Date Sampled: 07-05-2005
Matrix: Water Date Received: 07-05-2005

Analytical Test Results

Analyte	Method	Date Analyzed	Reporting Unit	Sample Results				Reporting Limit
				MW-9	MW-10	MW-11	MW-12	
Methane	GC/FID	07-06-05	µg/L	ND	11	ND	ND	5ug/L
Nitrate	352.1	07-07-05	mg/L (ppm)	21.3	20.3	19.4	22.2	0.01 ppm
Sulfate	375.4	07-07-05	mg/L (ppm)	44	44.7	50.8	47.1	1.0 ppm
Ferrous Iron	Colorimetry	07-07-05	mg/L (ppm)	0.10	0.08	0.21	0.13	0.05 ppm

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.

Environmental Laboratories

07-13-2005

CH₄ (by GC/FID)

Batch QA/QC Report

Client: Atlas Environmental Engineering Inc. Lab Job No.: R507013
Project: G & M Oil Co. #51
Matrix: Water Lab Sample ID: R507013-3
Batch No.: FG06A Analyzed Date: 07-06-2005

I. Sample/Sample Dup Report

Reporting Units: µg/L (ppb)

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	% RPD Accept. Limit
CH ₄	ND	243	267	9.4	30

II. LCS Result

Reporting Units: µg/L (ppb)

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limi
CH ₄	1,150	1,070	107.5	80-120

ND: Not Detected.



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R507013

QA/QC REPORT

(A). Initial Calibration

Date performed: 05-18-2005
Supply Source: AccuStandard
Instrument ID: HP 5970B-A

Analytical Method: EPA 8260B
Date of Source: 04-05-2005
Lot No. B3100219

Compound	Detector	RT (min.)	CONC Unit:ppb	Area	RF	RFave	SD _{n-1}	%RSD
Benzene	MS	9.90	10	7689	1.066	0.965	0.0761	7.89
		9.89	20	49200	0.863			
		9.90	50	128170	0.980			
		9.90	100	257707	0.925			
		9.89	200	543678	0.991			
Toluene	MS	13.40	10	39777	0.711	0.670	0.0604	9.02
		13.40	20	33072	0.580			
		13.40	50	88176	0.674			
		13.40	100	180666	0.648			
		13.41	200	403635	0.735			
Ethylbenzene	MS	15.48	10	4777	0.500	0.433	0.0403	9.30
		15.47	20	21805	0.395			
		15.48	50	55695	0.437			
		15.48	100	115770	0.415			
		15.47	200	240416	0.419			
M&P-Xylenes	MS	15.60	20	28155	0.613	0.526	0.0544	10.35
		15.61	40	50955	0.461			
		15.61	100	131084	0.515			
		15.61	200	290920	0.522			
		15.61	400	596927	0.521			
O-Xylene	MS	16.07	10	10138	0.557	0.503	0.0417	8.30
		16.08	20	24337	0.440			
		16.08	50	64685	0.508			
		16.08	100	139032	0.498			
		16.07	200	292241	0.510			



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R503065

QA/QC REPORT

(A). Initial Calibration

Date performed: 05-18-2005
Supply Source: AccuStandard
Instrument ID: HP 5970B-A

Analytical Method: EPA 8260B
Date of Source: 04-05-2005
Lot No. B3100219

Compound	Detector	RT (min.)	CONC Unit:ppb	Area	RF	RFave	SD _{n-1}	%RSD
Methyl tert-butyl Ether(MTBE)	MS	6.03	20	169382	0.909	0.982	0.0966	9.84
		6.04	40	62371	0.877			
		6.04	100	152474	0.967			
		6.04	200	356988	1.045			
		6.05	400	740502	1.112			
Di-isopropyl Ether	MS	7.19	20	55872	0.146	0.181	0.0275	15.2
		7.21	40	19493	0.171			
		7.22	100	44693	0.171			
		7.20	200	118775	0.213			
		7.20	400	224316	0.204			
Ethyl t-butyl Ether	MS	7.97	20	268047	1.203	1.285	0.1037	8.07
		7.99	40	82796	1.164			
		7.99	100	203708	1.292			
		7.99	200	460860	1.349			
		7.99	400	944428	1.418			
T-amyl methyl Ether	MS	10.21	20	166780	0.630	0.659	0.0229	3.47
		10.23	40	73124	0.641			
		10.23	100	175133	0.670			
		10.24	200	373302	0.670			
		10.23	400	752630	0.686			
Tert-Butanol	MS	4.72	50	23840	0.030	0.034	0.0029	8.40
		4.74	100	11568	0.033			
		4.74	500	28286	0.036			
		4.74	1000	58513	0.034			
		4.74	2000	122482	0.037			



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R503065

(B). Continuing Calibration

Date Performed: 07-06-2005

Analytical Method: EPA 8260B

Compound	Detector	RT	CONC Unit:ppb	Area	RF	%DIFF	ACP RGE %DIFF
Benzene	MS	9.87	50	140580	0.957	0.8	30
Toluene	MS	13.39	50	97400	0.663	1.0	30
Ethylbenzene	MS	15.46	50	61279	0.430	0.7	30
M&P-Xylenes	MS	15.60	50	147278	0.516	1.9	30
O-Xylene	MS	16.06	50	72158	0.506	0.6	30
Methyl tert-butyl Ether	MS	6.02	200	205900	1.021	4.0	30
Di-isopropyl Ether	MS	7.18	200	59630	0.203	12.2	30
Ethyl t-butyl Ether	MS	7.97	200	251939	2.498	16.9	30
T-amyl methyl Ether	MS	10.21	200	197079	0.671	1.8	30
Tert-Butanol	MS	4.73	1000	39223	0.039	14.7	30



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R503065

II. Matrix Spike (MS)Matrix Spike Duplicate (MSD) Unit: µg/L (ppb)
Date Performed: 07-06-2005 Batch #: 0706-VOAW1 Lab Sample I.D.: SW0706-1

ANALYTE	Sample Conc.	SPK Conc.	MS	MSD	%MS	%MSD	RPD	ACP % MS	ACP RPD
1,1-Dichloroethene	ND	20	15.9	18.5	79.5	92.5	15.1	70-130	30
Benzene	ND	20	17.9	20.8	89.5	104.0	15.0	70-130	30
Trichloro-ethene	ND	20	17.8	15.2	89.0	76.0	15.8	70-130	30
Toluene	ND	20	17.5	22.1	87.5	110.5	23.2	70-130	30
Chlorobenzene	ND	20	18.1	20.9	90.5	104.5	14.4	70-130	30

III. Laboratory Quality Control Check Sample

Date performed: 07-06-2005 Analytical Method: EPA 8260B
Supply Source: Supelco Lab LCS ID.: LCS/WG
Lot No. LB09676 Unit: µg/L (ppb)
Date of Source: 01-11-2005

ANALYTE	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	44.0	50	88.0	80-120
Benzene	49.6	50	99.2	80-120
Trichloro-ethene	49.7	50	99.4	80-120
Toluene	49.5	50	99.0	80-120
Chlorobenzene	49.8	50	99.6	80-120

ND: Not Detected.



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R507013

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

Date performed:	10-30-2004	Analytical Method:	LUFT/TPH
Supply Source:	Shell	Date of Source:	05-02-2004
Instrument ID:	HP GCMS-A	Lot No.	NA

Compound	Detector	CONC Unit:ppb	Area	RF	RFave	SD _{n-1}	% RSD
TPH (Gasoline) C4-C12	FID	100	11178905	3.518	2.869	0.38	13.41
		500	17308962	2.487			
		1,000	34328154	2.747			
		2,000	54526262	2.804			
		5,000	84720521	2.788			

(B). Continuing Calibration

Date performed:	07-06-2005	Analytical Method:	LUFT/TPH
-----------------	------------	--------------------	----------

Compound	Detector	RT	CONC Unit:ppb	Area	RF	% DIFF	ACP RGE % DIFF
TPH (Gasoline)	FID	NA	1000	6942990	2.91	1.5	15

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Date Performed:	07-06-2005	Batch #:	AMG06-GW1	Unit:	µg/L (ppb)
-----------------	------------	----------	-----------	-------	------------

Lab Sample I.D.:	SW0706-1
------------------	----------

Compound	Sample Conc.	Spike Conc.	MS	MSD	% MS	% MSD	% RPD	ACP % MS	ACP RPD
TPH-g	ND	1,000	1,030	1,190	103.0	119.0	14.4	70-130	30

III. Laboratory Quality Control Check Sample

Date performed:	07-06-2005	Analytical Method:	LUFT/TPH
Supply Source:	Accustandard		
Lot No.:	B0080228	Lab LCS ID.:	LCS/S
Date of Source:	01-11-2005	Unit:	ug/L

Compound	SPK CONC	RESULT	%RECOVERY	ACP %
TPH-g	1000	1,020	102.0	80-120

ND: Not Detected.



Southland Technical Services, Inc.

Environmental Laboratories

Lab Job No.: R507013

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

Date performed: 11-09-2004

Analytical Method: LUFT/TPH

Supply Source: Unocal

Date of Source: 11-09-2004

Instrument ID: HP GC-DA

Lot No. NA

Compound	Detector	CONC Unit:ppm	Area	RF	RFave	SD _{n-1}	%RSD
TPH C10-C23	FID	50	1488897	0.000033582	0.000063904	1.32E-05	20.6
		200	3381027	0.000059154			
		500	7920334	0.000063129			
		5000	77311440	0.000064673			
		10000	156936096	0.00006372			

(B). Continuing Calibration

Date performed: 07-06-2005

Analytical Method: LUFT/TPH

Compound	Detector	RT	CONC Unit:ppm	Area	RF	%DIFF	ACP RGE %DIFF
TPH	FID	NA	500	8982220	5.5667E-05	12.9	15

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Date Performed: 07-06-2005

Batch #:EG06-DW1

Unit: mg/L (ppm)

Lab Sample I.D: SW0706-1

ANALYTE	SPK CONC	MS	MSD	% MS	% MSD	% RPD	ACP %MS	ACP RPD
TPH	20	20.2	20.6	101.0	103.0	2.0	70-130	30

III. Laboratory Quality Control Check Sample

Date performed: 07-06-2005

Analytical Method: LUFT/TPH

Supply Source: Unocal

LCS/S

Date of Source: 11-09-2004

Unit: mg/L

Analyte	LCS Report Value	SPK CONC	%RECOVERY	ACP %
TPH	20.6	20.0	103.0	80-120

ND: Not Detected.

R507013

ATLAS ENVIRONMENTAL ENGINEERING, INC.					CHAIN OF CUSTODY FORM				
JOB NUMBER	SITE/PROJECT NAME				QUARTERLY WATER SAMPLING				SUBMIT RESULTS TO:
G&M #51	G & M OIL CO. #51								
JOB NUMBER	SITE/PROJECT LOCATION				ANALYTICAL METHOD				ATLAS ENVIRONMENTAL ENG. 15701 CHEMICAL LANE HUNTINGTON BEACH, CA 92649
GSI-Q305-FV	2155 S. ATLANTIC BOULEVARD COMMERCE, CA 90040				TPHg 8015M	TPHd 8015M	8260B BTEX MTBE FULL SCAN	METHANE NITRATE SULFATE FERROUS IRON	ATTN: CONSTANTIN TUCULESCU PHONE NO. (714) 890-7129 FAX NO. (714) 890-7149
SAMPLER'S SIGNATURE	<i>[Signature]</i>								REMARKS
SAMPLE NUMBER (I.D.)	YEAR 2005	TIME AM/PM	DEPTH BELOW GRADE (ft)	NO. OF CONTAINERS					<i>Lab ID</i>
MW-1	7-5-05	9:45		4V-1B	X	X	X	X	R507013 -1
MW-2	7-5-05	11:39		4V-1B	X	X	X	X	-2
MW-3	7-5-05	12:25		4V-1B	X	X	X	X	-3
MW-4	7-5-05	2:09		4V-1B	X	X	X	X	-4
MW-5	7-5-05	2:48		4V-1B	X	X	X	X	-5
MW-6	7-5-05	3:00		4V-1B	X	X	X	X	-6
MW-7	7-5-05	3:30		4V-1B	X	X	X	X	-7
MW-8	7-5-05	4:10		4V-1B	X	X	X	X	-8
MW-9	7-5-05	4:30		4V-1B	X	X	X	X	-9
MW-10	7-5-05	4:40		4V-1B	X	X	X	X	-10
MW-11	7-5-05	5:10		4V-1B	X	X	X	X	-11
MW-12	7-5-05	5:35		4V-1B	X	X	X	X	-12
SAMPLES INTACT: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>					RELINQUISHED		DATE/TIME	DATE/TIME	RECEIVED
SAMPLES PROPERLY COOLED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>					<i>[Signature] ATLAS</i>		DATE/TIME 7-5-05 6:30	DATE/TIME 7-5-05 6:30	RECEIVED BY (SIGNATURE)/COMPANY: <i>[Signature]</i>
TEMPERATURE STORED: 4°C									
PRESERVATIVES ADDED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> TYPE: <i>HCl</i>					<i>[Signature] ATLAS</i>		DATE/TIME	DATE/TIME	RECEIVED BY (SIGNATURE)/COMPANY: <i>[Signature]</i>
SAMPLES ACCEPTED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>									
IF NOT, WHY: _____					<i>[Signature] ATLAS</i>		DATE/TIME	DATE/TIME	RECEIVED BY (SIGNATURE)/COMPANY: <i>[Signature]</i>
SAMPLES PLACED IN LAB REFRIGERATOR YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> REP. INITIALS: <i>J.W.</i>									
LABORATORY NAME: STS					RELINQUISHED BY (SIGNATURE)/COMPANY		DATE/TIME	DATE/TIME	RECEIVED BY (SIGNATURE)/COMPANY:

APPENDIX C

Site Address: 2155 South Atlantic Boulevard, Commerce, CA (G51)			Range	Soil Type		Velocity Range
X axis dispersivity	10 ft	0.1-10	Gravel	up to 3 ft/d		
Y axis dispersivity	0.33 ft	(0.33~0.65) D _x	Coarse Sand	up to 1.5 ft/d		
Distance parallel to direction of GW flow	120 ft		Clean Sand	up to 1.0 ft/d		
Distance perpendicular to direction of GW flow	15 ft		Fine Sand	up to 0.5 ft/d		
Groundwater velocity	0.075 ft/day	0.01-3.0	Silty Sand	up to 0.1 ft/d		
Source concentration	2.57E+09 ug/L	2.57E+06	Sandy Silt	0.01-0.05 ft/d		
Rate of discharge	25 ft ² /yr	mg/L	Silty	0.01 ft/d		
Discharge duration or <i>dt</i>	8.33E-02 yr		Soil Type	Date Release Discovered		
Mass discharged per unit depth (C _o Qdt)	1.52E+11 ug/ft			5/26/1997		
Distance (X ₂) to DG well 2	180 ft			Date of 1st Monit. Event		
Distance (Y ₂) perpendicular to direction of flow	17 ft			5/28/2002		
Distance (X ₃) to drinking water well	1600 ft					
Distance (Y ₃) perpendicular to direction of flow	250 ft					
Maximum concentration in drinking water well	0.00 ug/L					
Time when plume reached its peak in DW well	28000 days					
Time when plume first reached 5 ug/L in DW well	0 days					
Time remaining for plume to reach 5 ug/L in DW well	-24.4 years					
Well Name	Well No	Distance(x)	Distance(y)	C (ug/L)	Time (days)	
Downgradient Well 1 at T ₁	MW-3	120	15	619	1883	
T ₂				385	1974	
T ₃				357	2045	
T ₄				590	2138	
T ₅				798	2226	
T ₆				2130	2312	
T ₇				610	2403	
T ₈				333	2500	
T ₉				732	2606	
T ₁₀				830	2702	
T ₁₁				708	2769	
T ₁₂				70.7	2843	
T ₁₃				1560	2902	
T ₁₄						
T ₁₅						
T ₁₆						
T ₁₇						
T ₁₈						
T ₁₉						
Date of Last Record	4/4/2005			Date of First Record	5/28/2002	
Downgradient Well 2 at T ₁	MW-12	180	17	73.3	2606	
T ₂				23.7	2702	
T ₃				138	2769	
T ₄				125	2843	
T ₅				23.5	2902	
T ₆						
T ₇						
T ₈						
T ₉						
T ₁₀						
T ₁₁						
T ₁₂						
T ₁₃						
T ₁₄						
T ₁₅						
Date of Last Record	4/4/2005			Date of First Record	5/12/2004	
Comment	Max Time (data) 8902					